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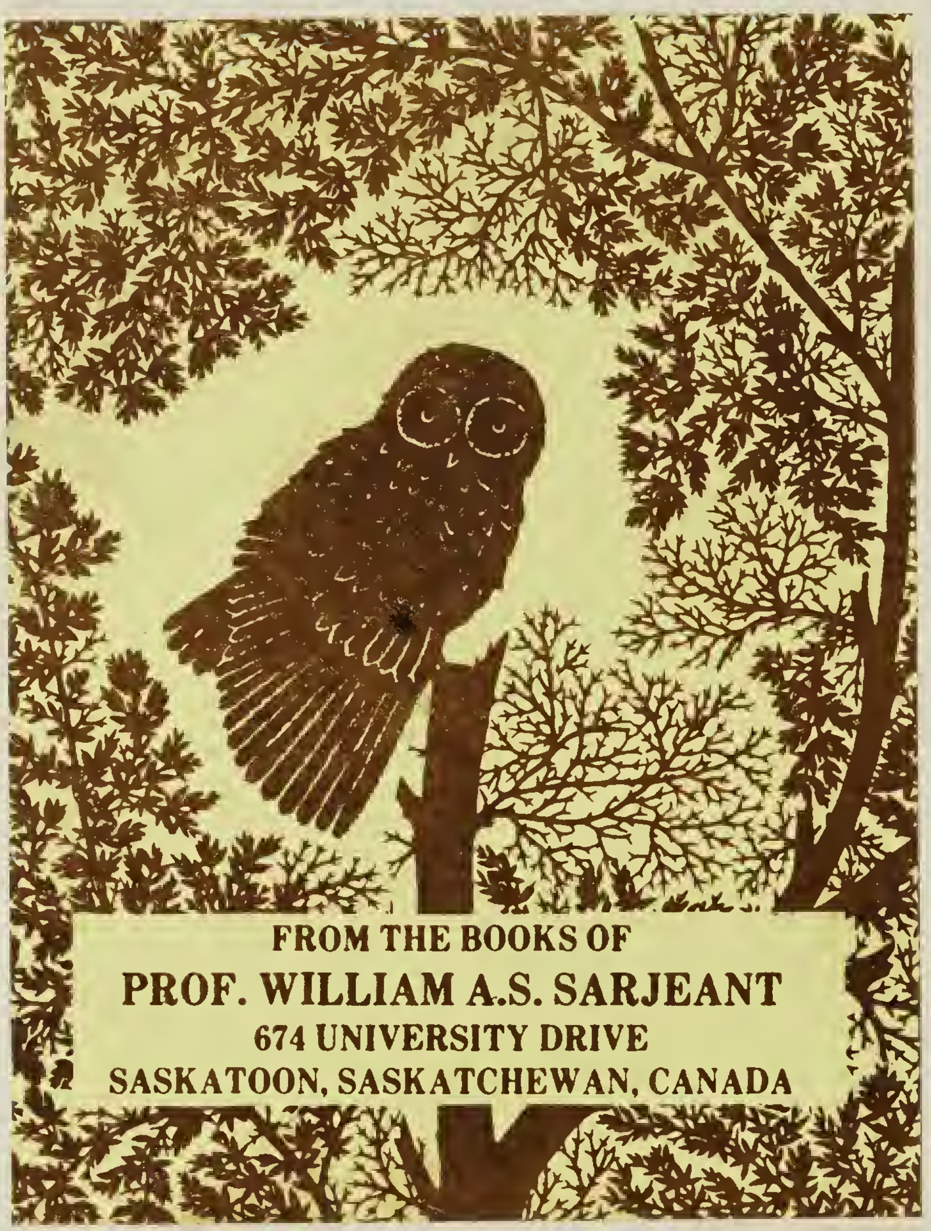

FROM THE BOOKS OF
PROF. WILLIAM A.S. SARJEANT
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BLUE JAY

A JOURNAL OF NATURAL HISTORY AND CONSERVATION
FOR SASKATCHEWAN AND ADJACENT REGIONS

ol. XXV, No. 1 Regina, Saskatchewan March, 1967

u'Appelle Valley at Lumsden, Saskatchewan Photo by Doug Gilroy

Published quarterly by the
SASKATCHEWAN NATURAL HISTORY SOCIETY
Regina, Saskatchewan

WHAT IS YOUR SPECIAL NATURAL HISTORY PROJECT?

Since, in 1967, the Saskatchewan Natural History Society is publishing the twenty-fifth volume of the *Blue Jay* we should be making special efforts to celebrate and to show that we as a society as well as a nation have reached a considerable level of maturity in which our responsibilities are accepted and our problems vigorously attacked.

As a society we can be proud of our regularly produced quarterly magazine and newsletter. To allow everyone the privilege of membership our fee, two dollars, is kept as low as possible and barely covers printing costs. Hundreds of schools and junior members pay only one dollar and the extra costs are met by supporting and sustaining memberships. You may help this year by gaining new members for the society, or by taking out a supporting membership.

As a society we aim in the near future to publish or assist in the publication of several special works of real natural history worth. One of these is a book, *Hours and the Birds*, by R. D. Symons, which will appeal especially to those interested in birding experiences over the years in Saskatchewan. Because of the many color plates, the University of Toronto Press required a financial guarantee before beginning the publication. Because of the authenticity of the work and the way in which the text, paintings, and sketches of the author reflect his lifetime interest in birds, our Society felt that we should try to raise funds to guarantee as much as $5000 toward this publication, as a very suitable centennial project. Generous support has already been received from members and we hope that others will give donations for this project and that they will further support it by buying the book through our book shop when it becomes available.

As members of a natural history society each of us can have a special centennial and 25th anniversary natural history project. One that I would suggest is the seeking of an answer to the question, "Are there any Greater Prairie Chicken (Pinnated Grouse) in the Prairie Provinces today?" Mr. Pegg of Ontario (see page 34) thinks he may have seen some in the Cypress Hills last year. Earl Godfrey, in his new *Birds of Canada*, gives three rather recent records which he appears to regard as authentic — at Old Wives Lake (August 25, 1959), Stoughton (October, 1960) and Sidewood (1959). If we can find a small population anywhere in the Prairie Provinces I'm sure that the Wildlife Department of our Government would be very interested and would co-operate in every way to protect the birds, undertaking habitat studies to see how their future in Saskatchewan might be insured.

I would also suggest that members especially interested in conservation form an active committee within the society. They should meet for day-long discussions at least once a year. They should have a conservation section in the *Blue Jay* and they should publish items regularly in the daily and weekly press to help make the public more conservation-minded. First, who is willing to work on such a committee? Second, what are the main conservation problems in Saskatchewan, or in the Canadian prairies? What areas are especially in need of protection? To what extent should we co-operate in the elimination of skunks, foxes and coyotes? Do our birds of prey get the protection which the law allows and are they numerous enough to play their particular role in nature? What about Agriculture in this day of rapidly growing cities —are too many lands being converted to production? Let's get active for conservation in 1967. If you have opinions and if you are willing to work, please write to the Editor, 2335 Athol Street, Regina.

Whatever 1967 projects you have, I hope you will have a special natural history project and that you will tell us about it. Perhaps this year you can take time to enjoy the beauty of flowers or bird song or blizzard, or perhaps your project will be in photography or writing, or perhaps this year you will gain new recruits by taking time to share your enthusiasms with others. Let's hope that the projects started this year will have lasting values.

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THE RAREST TYPE OF BLUE JAY

by **Richard G. Conn,** Chief, Division of Human History,
Manitoba Museum of Man and Nature, Winnipeg

Look west! Just over the Rockies into interior British Columbia and western Montana you will see a region of rough, broken mountain ridges that begin as foothills east of the Columbia and grow higher and more heavily timbered until they rival the main ranges of the Continental Divide. The swift, clear rivers of the country—the Flathead, Pend Oreille, and Kootenai — punctuate the mountains, drawing off the surplus of winter snow and spring rain, and offering the easiest means of access to the lush valleys. In the fur trader's day and long before, the rivers were the roads: to an Indian trading fair at the Dalles or back home to the fur depots in the Canadas. Even today, the highways and railroads follow the riverbanks through the mountain gorges. The intermontane region is rugged and inaccessible, true, but it is also rich in Nature's bounty. Many a fortune has been coined with the timber from its hills and minerals inside them. Those who prefer not to prey upon their environment find riches of another sort in groves of stately Ponderosas, sparkling mountain lakes, and a wealth of fish and game.

In the valleys of this interior region you might meet men and women of the Salish-speaking Indian tribes whose ancestors settled this area at least four thousand years ago. Looking further among these old settlers, you might find one of the last few living **Bluejays**—a Salishan man set apart by his dealings with the supernatural and the special skills he has acquired in consequence. Although the true Blue Jay *(Cyanocitta cristata)* is unknown in the area, this name is commonly applied to Steller's Jay *(Cyanocitta stelleri)* by the English-speaking residents of the intermontane region. An English-speaking Salishan would be likely to follow this usage. As applied to an Indian, the name becomes a single word. The Salishan Bluejay shares *Cyanocitta's* reputation for outrageous and impudent behaviour, but he has gone beyond this to develop his skills in clairvoyance and divination.

To explain the nature of the Bluejay, we have to consider some basic Salishan religious concepts. Like most North American Indians, these people believed in a vast spirit world: sensed rather than seen and existing all about them. The spirit folk controlled forces and conditions humans could only hanker after, such as the weather, movements of game animals, and the laws of chance. So it was obvious that Man had to establish relations with the Unknown to improve his precarious situation. Being a democratic people, the Indians approached the Supernatural as individuals. Boys—and sometimes girls—went out to a solitary vigil in the forests or on a hilltop shortly after reaching puberty. By his courage in facing this test, by the fast he observed, and by the prayers he offered, the novice showed his worthiness and hoped to attract the sympathy of a benevolent spirit who would become his life-long mentor. If the novice's appeal was good enough, a spirit came to him in a vision, taught him a "power" song and told him how to increase magically his skill in some activity — perhaps hunting or gambling. Throughout his life the boy would sing his magic song whenever he needed reassurance and obey any special instructions his guardian spirit had given him. The Other World would be pleased and the novice's success was assured.

One contact with the Supernatural was enough for most people. They were content with the security and strength a single guardian spirit offered. But in each generation there were a few boys who went much far-her. Perhaps the religious life apealed to them, or maybe—as the ndians would see it — the spirits ought them out. In time these excepional young men acquired other upernatural teachers and a growing bility to work with the Unknown. In ime they could even approach the ost powerful and dangerous forces ho in their turn might bestow the reatest powers. Most of those who athered such strength became "doc-ors" and devoted themselves to curing oth mental and physical sicknesses. ne or two, however, encountered the luejay spirit and were obliged to lay a different role.

How are we to describe the attriutes and personality of a spirit, hen those Indians who know somehing of it are uncertain and usually nwilling to talk? We may infer that he Bluejays' mentor was very powerul, well-nigh impossible to control, nd as capricious as the bird itself. t gave its human protégés ability to ead other people's thoughts, to foreell the future, to find lost things, and ome skill in influencing another's ctions or ideas. At times Bluejays ere asked to treat invalids — generally the hopeless cases — but their services tended to be more personal than practical. One could retain a Bluejay for his clairvoyant skill, to warm up a cold heart, or even to guarantee a horse race.

The most striking expression of the Bluejay spirit came at the mid-winter Guardian Spirit Dances. Anyone with a spirit protector (and this included most of the adult population) could take part. Acting one at a time, men sang their magic songs and danced. The Indians believed that the spirits actually visited the dance to help and inspire their human partners. But the Bluejays, by their spectacular performances, showed the difference between their demanding teachers and the gentler supernatural patrons of other men. The Bluejay spirit did not simply inspire its bearer; it possessed him suddenly and dramatically. The Bluejay men began to chatter wildly in unintelligible language and rushed erratically around the dance lodge. Anthropologists use the expression "contrary behaviour" to describe a further part of his conduct. If a Bluejay were still speaking intelligible Salish and announced his intention of

teller's Jay

from a painting by F. Lansdowne

doing something he immediately did the exact opposite. If any spectator asked him to do something, he did the reverse of this as well. Sometimes anxious dance leaders took advantage of the situation by shouting "don't stand still" in order to quiet a frenzied Bluejay. In their possessed state the Bluejays could also read the secret thoughts of anyone present and would spew them out with no regard for the consequences. This uncanny ability gave the spectators a chance to practise mental discipline. Some years ago the writer heard a Salish woman laughing at her efforts to avoid thinking about an intimate family problem as a Bluejay was dancing.

Not content with wreaking social chaos, the spirit demanded athletic feats as well. It is said that formerly Bluejay dancers climbed out the dance lodge's smoke channel and clambered about on the ridge poles. Considering the light construction of an old-style dance lodge, this would have been a truly dare-devil performance. In addition, the Bluejays are said to have climbed trees near the lodge where they sat perched, screaming like jays and waving their arms, until the other dancers could coax them down. Today, when the few living Bluejays are elderly men, these violent parts of the dancing are no longer practised.

If we can say little about the Bluejay spirit, we can only guess why it came to be associated with the bird. A possible hint toward the answer may lie in Salishan mythology. Like so many other people, the tribes told stories of an earlier time when men and animals lived on equal footing and spoke a common language. Consequently, Salishan myths have many animal characters. Each of these has a rudimentary personality, based perhaps on human-like traits manifested by the actual species, and elaborated in direct proportion to its importance in the body of legend. Considering that the story-tellers were looking for human analogies in animal behaviour, we can almost predict the stereotypes some myth-animals will assume: the wolf is a hardy hunter, the eagle a brave warrior, and so on. When an animal didn't display behavioural patterns similar to human motivations, the Indian story-teller used his imagination freely. Thus the meadowlark appears in one story as a naïve, lovable little person much like Pogo the Possum. Stranger yet, the Blacktail doe is cast as a voluptuous siren. The Bluejay appears in Salishan legends as an impudent, aggressive upstart. This portrait was very likely drawn from observation of actual Steller's Jays with a liberal portion of imagination added. If this can be taken as the Salishan opinion of the bird, we may consider it a clue to the relationship we seek. Let us ask cautiously—for we are on speculative ground now — whether the Salishan people saw similarities between the bird's rambunctious ways and the actions of dancers possessed by the spirit. If this was so, we might ask further if the Indians imagined that the behaviour of both human and avian Bluejays was directed by the same supernatural agency. But this is all conjecture, for the knowledge available to us simply will not answer the question completely. Some of the possessed dancers' conduct — in particular, perching in trees and screaming like birds—suggests a kind of imitation and implies that the coincidence of names is not accidental. We may guess, then, that the Bluejay dancer and his tutelary spirit are somehow associated in the Indian view with the bird, but we cannot be sure how.

Why did men become Bluejays? Certainly not for gain or profit, for their services were so specialized that they must have had few clients. Perhaps for prestige, since they had their share of this commodity. But the Bluejays, if respected, were regarded with awe and even fear because their skills could be turned to malevolent ends. The poor Bluejay's magical abilities may have brought him fame, but they also set him apart from his fellows. In the Indian view, men didn't seek the Bluejay power—it came for them. Being a Bluejay in a Salishan camp may have been something like being a suspected saint in Mediaeval Europe: bringing few earthly rewards, respect mingled with fear and even hostility, and a slight estrangement from humanity.

Today there are only a handful of Bluejays. With the decline of the old Indian religion, there may be no more. The living Bluejays are elderly and unable to take an active role in the midwinter dances. Although they no longer climb the rafters, they still command respect. Christian Indians and even white homesteaders on the Salish reservations are sometimes uneasy in their presence, and most of the Salish tribesmen react to them with wary deference.

In the summer of 1953, a young Indian man disappeared from his home on the Colville Reservation in north central Washington State. When neither the reservation police nor the state patrol could find him, the family sent to Montana for a Bluejay. This man came at once to the family home and held a shamanistic seance in which he described both the secret grave and the murderer. His words were not straightforward and direct. Rather his oracle sounded like the ambiguous remarks of the Delphic priestess or Macbeth's witches. Shortly afterwards, though, the body was recovered in a place fitting the Bluejay's description and the terrified murderer confessed.

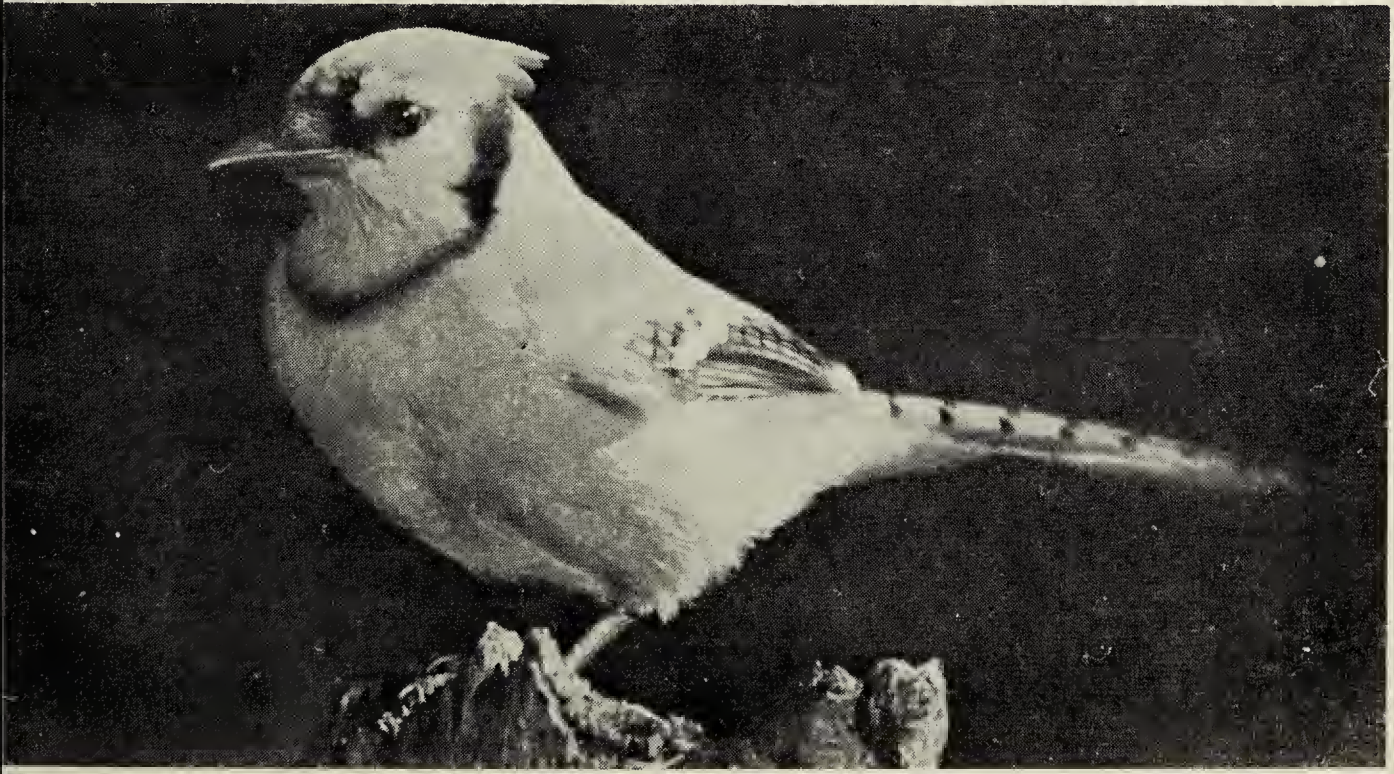
Naturally the seance was a closed affair with few people outside the family invited. However, a day or so later I had a brief glimpse of this man who had the entire Reservation buzzing. On his way back to Montana, his car stopped for gas and the station attendant—a young white man—took the old man a glass of water. He wore a black ten-gallon hat with a blue silk scarf tied around the crown and his iron-grey braids were neatly wrapped in fur. He looked frail and tired, but his eyes twinkled as he smiled and returned the empty glass. I have seen him several times since walking along the streets of the little reservation towns with his cane and big hat. It is sad to think there may be no more like him, for even the Twentieth Century has a place for this—the rarest of Blue Jays.

* * * *

Readers wanting more information about the Bluejays of the Salishan tribes are referred to the following two papers:

Ray, Vern F. 1937. The Bluejay character in the Plateau Spirit Dance. American Anthropologist, new series, 39:593-601.

Turney-High, Harry H. 1933. The Bluejay Dance. American Anthropologist, new series, 35:103-7.



Blue Jay

Photo by F. W. Kent, Iowa City

TWENTY-FIFTH ANNUAL SASKATCHEWAN CHRISTMAS BIRD COUNT, 1966

compiled by **Mary Houston,** 863 University Drive, Saskatoon

Generally mild weather predominated during the entire count period and only two localities (Regina and Yorkton, the latter with a high of -18°) encountered below zero temperatures on the day of their count.

Sixty species were recorded on count day (exceeded only in 1962—68 species, and 1960—61 species) and eight additional species were seen during the count period.

The outstanding record this year was the **Mountain Chickadee** sighted by Steve Mann and party in the Piapot area. This was not only a new species for the Christmas count list, but a species never before sighted in Saskatchewan at any time of year and hence an addition to the provincial list. This bird appeared at the Mann feeding tray prior to December 11. The other new species for the Christmas count list was the **Great Gray Owl** seen near Cowan Lake, 23 miles north of Big River, and between Pas Trail and Forest Trail, between 30 and 12 miles northeast of Nipawin. These two species bring the all-time total for 25 Christmas counts to a remarkable 113 species.

We welcome participation by the new society at Swift Current and by the reactivated Yorkton society. Stan Riome helped organize no less than five counts at five localities in the Nipawin area and Steve Mann did the best job of organizing a rural area with 14 ranchers participating in his count south of Piapot. Manitoba counts were sent to the Manitoba Natural History Society Newsletter. Three Alberta and one N.W.T. count are appended to our list that follows.

BATTLEFORD, Dec. 26; 30 miles by car and 3 hours on foot; temperature 25°; wind light, sky overcast; 12 inches of snow. 8 species, 128 individuals. Ruffed Grouse, 8; Rock Dove, 13; Hairy Woodpecker, 1; Black-billed Magpie, 3; Black-capped Chickadee, 4; Bohemian Waxwing, 85; House Sparrow, 11; Pine Grosbeak, 3. (Add: Goshawk, 1, Dec. 28; Sharp-tailed Grouse, 4, Dec. 27; Gray Partridge, 9, Dec. 22; Great Horned Owl, 1, Dec. 28; Short-eared Owl, 1, Jan. 2; Common Redpoll, 6, Dec. 24.)—Harold Fisher, Spencer G. Sealy.

BROADVIEW, Dec. 26; 32 miles by car and 1½ miles on foot; temperature 0°; no wind; 7 species, 216 individuals. Ruffed Grouse, 2; Gray Partridge, 4; Black-billed Magpie, 17; Black-capped Chickadee, 10; Starling, 25; House Sparrow, 8; Snow Bunting, 150.—Douglas G. Francis.

CARLEA, Dec. 27; temperature, 14°; wind S.E. 6 mph. 9 species, 70 individuals. Sharp-tailed Grouse, 4; Hairy Woodpecker, 2; Downy Woodpecker, 3; Gray Jay, 1; Blue Jay, 6; Black-capped Chickadee, 9; House Sparrow, 14; Evening Grosbeak, 29; Slate-colored Junco, 2.—Mrs. R. C. Roney, Wesley Roney.

CODETTE, Dec. 27; 5 miles in 6 hours on skis. 18 species, 135 individuals. Goshawk, 1; Ruffed Grouse, 3; Sharp-tailed Grouse, 6; Gray Partridge, 4; Rock Dove, 6; Great Horned Owl, 2; Snowy Owl, 2; Hairy Woodpecker, 1; Downy Woodpecker, 1; Black-billed Magpie, 5; Common Raven, 3; Black-capped Chickadee, 4; Bohemian Waxwing, 11; Northern Shrike, 1; House Sparrow, 12; Evening Grosbeak, 16; Pine Grosbeak, 11; Snow Bunting, 46. (Add: Boreal Owl, Dec. 28; Common Redpoll, Dec. 25).—Wally Harstad.

CONNEL CREEK, Dec. 27; 7 hours, 10 miles on snowshoes in heavy black spruce stands; temperature 20°; wind N.W. 5 mph; partly cloudy with light intermittent snow. 10 species, 128 individuals. Ruffed Grouse, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Black-billed Magpie, 2; Common Raven, 3; Black-capped Chickadee, 7; Red-breasted Nuthatch, 3; Starling, 1; Pine Grosbeak, 8; Snow Bunting, 100. —Paul Fowler.

COWAN LAKE - COWAN RIVER, Dec. 31; 17 miles by car and ½ mile on foot in 2 hours; temperature 8°; overcast with light wind; 10 inches of snow. 8 species, 20 individuals. Great Gray Owl, 1; Hairy Woodpecker, 1; Black-billed Magpie, 1; Common Raven, 1; Black-capped Chickadee, 3; Boreal Chickadee, 1; Hoary Redpoll 1; Common Redpoll, 11. —Robert H. Buhr, C. Stuart Houston.

DILKE, Dec. 28; 52 miles by car and 2 on foot in 3 hours; temperature 5° to 13°; sunny; wind N.W. 5-10 mph; 12 inches of snow, drifted. 10 species, 131 individuals. Sharp-tailed Grouse, 10; Gray Partridge, 28; Rock Dove, 2; Hairy Woodpecker, 1; Horned Lark, 3; Black-billed Magpie, 14; Bohemian Waxwing, 10; House Sparrow, 50; Rusty Blackbird, 2; Snow Bunting, 11. (Add: Golden Eagle, 1, Dec. 31; Snowy Owl, 1, Dec. 24; Saw-whet Owl, 1, Jan. 1; Slate-colored Junco 1, Dec. 21, 22, 23, 25, 26.)—Boswell Belcher (compiler), Margaret Belcher, Mr. and Mrs. S. R. Belcher.

ERINFERRY, Dec. 21; light breeze with light snow; at feeding station. 6 species, 26 individuals. Hairy Woodpecker, 2; Downy Woodpecker, 2; Gray Jay, 4; Blue Jay, 12; Black-billed Magpie, 2; Black-capped Chickadee, 4. (Add: Sharp-tailed Grouse, 9, Dec. 22; Common Raven, 2, Dec. 22, 25; Evening Grosbeak, 28, Dec. 22; Snow Bunting, large flock, Dec. 22).—Mrs. E. A. Dodd.

FORT QU'APPELLE, Dec. 31; temperature about 10°; 8 inches of snow. 5 species, 66 individuals. Downy Woodpecker, 1; Black-billed Magpie, 11; Black-capped Chickadee, 3; Northern Shrike, 1; House Sparrow, 50. (Add: Sharp-tailed Grouse, 11, Jan. 2; Snowy Owl, 1, Dec. 29; Hairy Woodpecker, 2, Dec. 30 and Jan. 1; Blue Jay, 1, Dec. 22; Bohemian Waxwing, 16, Dec. 23, 40, Dec. 27, and 1, Dec. 28; Pine Grosbeak, 1, Dec. 30; Snow Bunting, 8, Dec. 25 and 10, Dec. 26).—E. Manley Callin (compiler), Mr. and Mrs. Errol Cochrane, Mr. and Mrs. Wm. Gray, Dale Nostbakken, Horace Reed.

HAWARDEN, Dec. 23; trip of 20 miles and around farm; 12 inches of snow. 4 species, 221 individuals. Gray Partridge, 15; Rock Dove, 3; Black-billed Magpie, 3; House Sparrow, 200. (Add: Snowy Owl, 1, Dec. 31; Bohemian Waxwing, 2, Dec. 29).—Harold Kvinge.

INDIAN HEAD, Dec. 27; 4 miles by foot and 16 miles by car, also around farmyard, a total of 6 hours; temperature 15°; wind S. at 10 mph.; overcast. 8 species, 283 individuals. Sharp-tailed Grouse, 4; Gray Partridge, 14; Great Horned Owl, 1; Downy Woodpecker, 1; Black-billed Magpie, 8; Black-capped Chickadee, 5; House Sparrow, 100; Snow Bunting, 150. (Add: Pigeon Hawk, 2, Dec. 23; Rock Dove, 3, Dec. 29; Hairy Woodpecker, 1, Dec. 29). — Lorne Scott.

KELVINGTON - HIGH HILL, Jan. 2; 45 miles by car and about town in 3 hours; temperature 10°; clear. 8 species, 149 individuals. Downy Woodpecker, 1; Black-billed Magpie, 7; Common Raven, 1; Black-capped Chickadee, 2; Northern Shrike, 1; House Sparrow, 46; Evening Grosbeak, 35; Snow Bunting, 56. (Add: Pileated Woodpecker, 1, Dec. 28; Hairy Woodpecker, 1, Dec. 23; Bohemian Waxwing, 12, Dec. 21.)—Steve Naomi, Verna and Brian Waycheshen, Anton Waycheshen.

KENASTON, Dec. 28; temperature 15°; wind light; mostly clear; 12 inches of snow. 6 species, 28 individuals. Gray Partridge, 6; Great Horned Owl, 1; Black-billed Magpie, 11; House Sparrow, 5; Pine Grosbeak, 1; Snow Bunting, 4. (Add: Sharp-tailed Grouse, 16, Dec. 30 and 2, Dec. 27; Rock Dove, 26; Horned Lark, 3, Dec. 29; Common Redpoll, 4, Dec. 30.) —Lawrence Beckie.

LA LOCHE, Dec. 30; 8 miles by dog-team and return in 5 hours and 18 miles by car in 3 hours; temperature 4° to 16°; wind E. 10 mph.; hazy with intermittent sunshine; 14 inches of snow, unusually deep. 6 species, 30 individuals. Spruce Grouse, 1; Willow Ptarmigan, 6; Gray Jay, 2; Common

Raven, 3; House Sparrow, 11; Common Redpoll, 7. (Add: Black-billed Magpie, 1, Dec. 29.) — C. Stuart Houston, Alfred Herman (Chipewyan guide).

MOOSE JAW, Dec. 26; 87 miles by car and 17 party miles on foot; temperature 10° to 15°; wind light; overcast with light snow; 4 to 6 inches of snow on ground. 13 species, 2320 individuals. Sharp-tailed Grouse, 1; Ring-necked Pheasant, 30; Gray Partridge, 59; Rock Dove, 27; Great Horned Owl, 5; Snowy Owl, 5; Downy Woodpecker, 2; Black-billed Magpie, 95; Black-capped Chickadee, 16; Bohemian Waxwing, 559; Northern Shrike, 1; Starling, 20; House Sparrow, 1,500. (Add: Hairy Woodpecker, 1, Dec. 27; Horned Lark, 50, Jan. 2; Rusty Blackbird, 2, Jan. 2; Pine Grosbeak, 9, Dec. 29; Slate-colored Junco, 12, Dec. 21; Snow Bunting, 125, Jan. 2.)—Mr. and Mrs. Peter Brodie, Dawn Joanne, Scott and Robin Brodie, Russell Dennison, Mr. and Mrs. Carl Ellis, John Horton, Mrs. Vesta Humphries, Miss Pat Kern, Mr. and Mrs. Cy Knight, Mrs. A. W. McAvoy, Mrs. Dorothy Rhodes, Michael Rhodes, Miss M. Ritchie, Mr. and Mrs. G. Silversides and Ruth, Mrs. F. B. Taylor. (Members of the Moose Jaw Natural History Society. Leith Knight, compiler.)

NIPAWIN, Dec. 27; 100 miles by car, 4 miles on snowshoes in 7½ hours; temperature 20°; calm to 5 mph. N. wind; overcast; 14 inches of snow. 17 species, 1020 individuals. Mallard, 2; American Goldeneye, 34; Hairy Woodpecker, 3; Downy Woodpecker, 3; Gray Jay, 3; Blue Jay, 2; Black-billed Magpie, 56; Common Raven, 49; Black-capped Chickadee, 8; Boreal Chickadee, 1; Starling, 32; House Sparrow, 200; Rusty Blackbird, 1; Evening Grosbeak, 28; Pine Grosbeak, 46; Common Redpoll, 2; Snow Bunting, 550. (Add: Ruffed Grouse, Jan. 2; Red Crossbill, 2, Dec. 28.)—David Riome, Stan Riome.

PAS TRAIL, Dec. 27; about yard in the a.m. and 43 miles by car in 3 hours in the p.m.; temperature 10°; wind calm; overcast with light snow; 14 species, 225 individuals. Goshawk, 2; Ruffed Grouse, 1; Sharp-tailed Grouse, 3; Great Gray Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 6; Black-billed Magpie, 4; Common Raven, 9; Black-capped Chickadee, 4; Bohemian Waxwing, 25; Evening Grosbeak, 6; Pine Grosbeak, 22; Common Redpoll, 140.—Mrs. Anne Matthew, Mr. and Mrs. Walter Matthews, William Matthews.

PIAPOT, Dec. 28; 60 miles by car and 12 miles on foot in 26 party hours: temperature 24°; wind 12-15 mph; overcast; about ½ inch of snow. 19 species, 736 individuals. Golden Eagle, 4; Sharp-tailed Grouse, 104; Ring-necked Pheasant, 3; Gray Partridge, 42; Great Horned Owl, 5; Snowy Owl, 2; Hairy Woodpecker, 2; Downy Woodpecker, 2; Horned Lark, 22; Black-billed Magpie, 79; Black-capped Chickadee, 51; Mountain Chickadee, 1; Bohemian Waxwing, 23; House Sparrow, 281; Pine Grosbeak, 26; Common Redpoll, 53; Tree Sparrow, 1; Song Sparrow, 1; Snow Bunting, 34. (Add: Brewer's Blackbird, 1, Dec. 23.)—Stanley Birchall, Henry and Edith Borman, Mrs. Mary Drever, Mrs. Phyllis Flagg, Leslie and Randy Flagg, Mr. and Mrs. Robert Mann and Patricia, Mr. and Mrs. Steve Mann (compiler), Peter Swain, Harry Williams.

RAYMORE, Dec. 28; 6 species, 86 individuals. Rock Dove, 11; Downy Woodpecker, 2; Black-billed Magpie, 4; Black-capped Chickadee, 6; House Sparrow, 49; Pine Grosbeak, 14. (Add: Ruffed Grouse, 2, Dec. 27; Sharp-tailed Grouse, 6, Dec. 30; Rose-breasted Grosbeak, 3, Dec. 25; Evening Grosbeak, 5, Jan. 1; Snow Bunting, 11, Dec. 29.)—Wayne Harris.

REGINA, Dec. 26; 406 miles by car in 27½ party hours and 23 miles on foot in 18½ party hours; temperature –3° to 11°; wind S.E. 12 mph.; overcast with light snow and mist over Waterfowl Park; 5 inches of crusted snow on open fields. 36 species, 4343 individuals. Mute Swan, 8; Whistling Swan, 5; Canada Goose, 350; Mallard, 450; Gadwall, 1; Pintail, 1; Blue-winged Teal, 1; Canvasback, 2; Lesser Scaup, 13; Common Goldeneye, 2;

Ruddy Duck, 6; Ruffed Grouse, 1; Sharp-tailed Grouse, 10; Gray Partridge, 129; American Coot, 8; Rock Dove, 108; Great Horned Owl, 4; Snowy Owl, 9; Short-eared Owl, 1; Yellow-shafted Flicker, 3; Downy Woodpecker, 4; Horned Lark, 1; Black-billed Magpie, 81; Black-capped Chickadee, 14; Boreal Chickadee, 2; Red-breasted Nuthatch, 1; Brown Creeper, 1; Robin, 3; Townsend's Solitaire, 1; Golden-crowned Kinglet, 12; Bohemian Waxwing, 1032; Northern Shrike, 3; Starling, 123; House Sparrow, 1487; Pine Grosbeak, 3; Snow Bunting 463.—George Allen, Mrs. J. B. Bailey, Margaret Belcher, Greg Bobbitt, Frank Brazier, Bill Brownlee, Eric Cooke, Mrs. Elizabeth Cruickshank, Doug Gilroy, Jim Jowsey, Dr. and Mrs. G. F. Ledingham, Sandra Ledingham, Christine MacDonald, Helen Morrison, Sally Moss, Mr. and Mrs. Charles Payne, Maureen Rever, Tom Riffel, Mr. and Mrs. Hugh Smith (compilers), Elisabeth Wagner, Dick Yeaton. (Regina Natural History Society.)

SASKATOON, Dec. 26; 226 miles by car in 23½ party hours and 19 miles on foot in 12 party hours; temperature 13°; wind S.E. 4 mph.; 24 species, 5929 individuals. Mallard, 33; Pintail, 1; Redhead, 1; Lesser Scaup, 4; Common Goldeneye, 10; Pigeon Hawk, 1; Ruffed Grouse, 1; Sharp-tailed Grouse, 74; Ring-necked Pheasant, 6; Gray Partridge, 100; Rock Dove, 261; Great Horned Owl, 6; Snowy Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Blue Jay, 15; Black-billed Magpie, 218; Black-capped Chickadee, 61; Bohemian Waxwing, 923; Northern Shrike, 2; Starling, 63; House Sparrow, 4027; Pine Grosbeak, 64; Common Redpoll, 50. (Add: Goshawk, 1, Jan. 1; Saw-whet Owl, 1, Dec. 29, 30, 31; Horned Lark, 2, Jan. 2; Cedar Waxwing, 1, Jan. 1; Slate-colored Junco, 1, Jan. 1; Snow Bunting, 27, Dec. 31.)—W. J. Bruchs, John Cartwright, Pern Cordery, R. V. Folker, Glen A. Fox, Dr. and Mrs. J. B. Gollop, Stuart Golly, Mr. and Mrs. J. Greaves, Mr. and Mrs. Vic Harper, Mr. and Mrs. Jim Hogg, Dr. and Mrs. Stuart Houston, David Houston, Mr. and Mrs. Frank Lane, Elizabeth and Frances Lane, Mr. and Mrs. Murray Martin, Arnold Nijssen, W. S. Richards, Miss Elmire Sansregret, John and Stanley Shadick, Jim Slimmon, Keith Smilley, Allen Smith, Jim Wedgwood.

SPIRIT LAKE, Jan. 1; on foot for 6 hours; temperature 5° to 30°; clear becoming overcast with strong wind; 15 inches of snow. 15 species, 145 individuals. Ruffed Grouse, 3; Sharp-tailed Grouse, 6; Hairy Woodpecker, 6; Downy Woodpecker, 9; Black-backed Three-toed Woodpecker, 1; Blue Jay, 4; Black-billed Magpie, 3; Black-capped Chickadee, 55; White-breasted Nuthatch, 1; Bohemian Waxwing, 12; House Sparrow, 23; Evening Grosbeak, 3; Pine Grosbeak, 13; Common Redpoll, 4; Snow Bunting, 2. (Add: Great Horned Owl, 1; Dec. 25, 26, 27 and 30.)—Iris Anaka, Wm. Anaka, Joyce Gunn (compiler), Mrs. Gunn.

SWIFT CURRENT, Dec. 30; 10 miles by car and on foot in 2 hours; temperature 30°; wind light. 6 species, 67 individuals. Ring-necked Pheasant, 1; Gray Partridge, 17; Snowy Owl, 1; Black-billed Magpie, 4; Bohemian Waxwing, 30; Pine Grosbeak, 14. (Add: Rock Dove, 33, Dec. 27; Black-capped Chickadee, 10, Jan. 1; Starling, 10, Dec. 27; House Sparrow, 300, Dec. 27.)—Marion Hare, Lillian McBean, Jean McDaid, Paul Nodge.

VAL MARIE, Dec. 26; 50 miles by car and 4 on foot; heavy overcast; cool following chinook conditions; 10 inches of snow. 15 species, 144 individuals. Rough-legged Hawk, 3; Prairie Falcon, 1; Ring-necked Pheasant, 3; Gray Partridge, 15; Great Horned Owl, 1; Snowy Owl, 1; Horned Lark, 50; Black-billed Magpie, 18; Bohemian Waxwing, 13; Starling, 6; House Sparrow, 1; Red-winged Blackbird, 4; Rusty Blackbird, 8; Tree Sparrow, 6; Snow Bunting, 5. (Add: Golden Eagle, 2, Dec. 27; Sharp-tailed Grouse, 1, Dec. 27; Common Crow, 1, Dec. 27; Black-capped Chickadee, 3, Dec. 27; Northern Shrike, 2, Dec. 27.) — J.

David Chandler, Ruth Chandler.

WOODROW, Dec. 22; 44 miles in vicinity of Wood River and Pinto Creek; temperature 30°; calm; little snow. 10 species, 243 individuals. Golden Eagle, 1; Ring-necked Pheasant, 17; Gray Partridge, 59; Rock Dove, 5; Snowy Owl, 3; Short-eared Owl, 1; Horned Lark, 24; Black-billed Magpie, 3; House Sparrow, 30; Snow Bunting, 100.—C. H. Shulver.

YELLOW CREEK, Dec. 27; 4 miles on foot about yards, fields and wooded areas in 3 hours; temperature 6° to 10°; calm; cloudy with light snow; 15 inches of snow. 9 species, 87 individuals. Gray Partridge, 4; Great Horned Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Black-billed Magpie, 3; Black-capped Chickadee, 9; House Sparrow, 52; Pine Grosbeak, 5; Common Redpoll, 10. (Add: Ruffed Grouse, 5, Dec. 23; Gray Jay, 1, Jan. 1; Bohemian Waxwing, 11, Jan. 1; Snow Bunting, 1, Dec. 23.)—Bohdan Pylypec.

YORKTON, Dec. 26; 30 miles by car, 8 miles on foot; temperature –18°; calm; heavy hoarfrost; 1½ feet of snow. 8 species, 423 individuals. Sharp-tailed Grouse, 16; Gray Partridge, 27; Rock Dove, 2; Hairy Woodpecker, 1; Black-billed Magpie, 8; Black-capped Chickadee, 9; House Sparrow, 273; Snow Bunting, 87.—Michael Bantjes, Rod Bantjes, Dale Esopenko, Kent Hocevar, Glen Meekma, Larry Morgotch (compiler), Bob Pearce, Brian Procyshen, Jeff Smith, Frank Switzer, Gillean Switzer, Dr. Harold Wilkinson.

BLUFFTON, Alta., Jan. 2; 9 species, 225 individuals. Ruffed Grouse, 1; Gray Jay, 2; Blue Jay, 5; Black-billed Magpie, 1; Black-capped Chickadee, 4; House Sparrow, 2; Evening Grosbeak, 8; Pine Grosbeak, 2; Snow Bunting, 200. (Add: Hairy Woodpecker, 1, Dec. 27; Boreal Chickadee, 2, Dec. 25; 1, Dec. 28; 2, Dec. 31.)—Fred Schutz.

STETTLER, Alta., Dec. 22; about barn and feed yards; temperature 20°; sunny; 5 inches of snow. 6 species, 96 individuals. Sharp-tailed Grouse, 1; Blue Jay, 1; Black-billed Magpie, 5; Black-capped Chickadee, 5; Robin, 1; House Sparrow, 83. (Add: Ruffed Grouse, 4, Dec. 30; Gray Partridge, 8, Dec. 23; Great Horned Owl, 1, Dec. 31; Hairy Woodpecker, 1, Dec. 23; Downy Woodpecker, 1, Dec. 24; Bohemian Waxwing, 2, Jan. 2; Northern Shrike, 1, Jan. 1; Evening Grosbeak, 1, Dec. 29.)—Lloyd Lohr and Laverne Lohr.

WETASKIWIN, Alta., Jan. 2; all day about the farm; temperature, 20°; partly cloudy; 5 inches of snow. 5 species, 51 individuals. Hairy Woodpecker, 1; Blue Jay, 2; Black-billed Magpie, 3; Black-capped Chickadee, 5; House Sparrow, 40. (Add: Downy Woodpecker, 1, Dec. 26; Bohemian Waxwing, 7, Dec. 21; Evening Grosbeak, 1, Dec. 28; Pine Grosbeak, 1, Dec. 28.)—Fred H. Pegg.

FORT SMITH, N.W.T., Dec. 29; 40 miles by car in 4 hours; temperature 8°; wind light; overcast. 5 species, 94 individuals. Spruce Grouse, 1; Black-backed Three-toed Woodpecker, 1; Gray Jay, 4; Common Raven, 83; Common Redpoll, 5. (Add: Starling, 2—wintering here, for the first time this far north.)—Elsie and Ernie Kuyt, Hilah and Norman Simmons.

ADDENDA TO PRAIRIE NEST RECORDS SCHEME SUMMARY

Two species, for which nest records have been submitted, were omitted from the eight year summary of the P.N.R.S. which appeared in the December 1966 *Blue Jay.* In addition to those reported, the P.N.R.S. contains 54 cards on the Savannah Sparrow and three cards on the Baird's Sparrow. The addition of these two species to the summary brings the total number of species up to 238 and the total number of cards to 7,278.

Three cards representing the nests of Yellow Rails in Manitoba were submitted in 1962 by Mr. J. Lane of Brandon. They were reported in the 1962 report of the P.R.N.S. (*Blue Jay,* March 1963). However, the present whereabouts of these records is unknown. Can anyone help locate them? —*Robert R. Taylor,* University of Saskatchewan, Regina.

DDITIONAL BIRD NOTES FOR LITTLE GULL LAKE, SASKATCHEWAN

by **Robert W. Nero,** Manitoba Museum of Man and Nature, Winnipeg

In 1963, incidental to botanical and rnithological studies carried out in ortheastern Saskatchewan, Dr. eorge W. Argus and I made a brief rip by air to Little Gull Lake near he south shore of Lake Athabasca. Ve were at Little Gull Lake for seven ays, from July 30 to August 5. Our tudies were supported by grants from he National Research Council of anada and the Institute for Northrn Studies, Saskatoon.

This remote and beautiful area had arlier yielded some significant bird ecords, including a Little Gull *(Larus ninutus)*, for which the lake was amed, and breeding Semipalmated lover, Northern Phalarope and orned Lark (Nero. 1963. Birds of he Lake Athabasca region, Saskathewan, Spec. Publ. No. 5, Sask. Nat. ist. Soc.). This locality had not, owever, previously been visited late n the season, hence the following bird ecords are of particular interest. ost of our time was spent within a ile of the camp, though one day we ambled west four miles into the adjaent sand dunes. Birds were notably carce compared to previous visits. ulls, which had been so conspicuous n 1962, were absent, and thus the lake seemed peculiarly quiet. No warblers were recorded, sparrows were scarce, and a solitary Robin was the only thrush observed. Evidently the southward migration, already indicated by a marked movement of birds far to the east at Stony Rapids on July 26 and 27, was here well under way. There were, however, a few late nesting birds. For example, we found a pair of Common Loons and a Pintail hen, each with downy young, and a Red-throated Loon nest with eggs, the second for Saskatchewan. Of the 43 species observed during this period, Osprey and Sora had not previously been recorded at Little Gull Lake.

A noticeable feature was the presence of far more water in ponds out in the sand dunes than we had previously encountered. In a few cases we found a substantial growth of sedge along the pond margin and we guessed that the water had been standing a month or more. What effect this change in the habitat may have had upon the bird life within the dunes is a matter for speculation, but this observation suggests that the dunes may on occasion attract more birds than have so far been observed.

Little Gull Lake, June 30, 1962

SPECIES ACCOUNT

Common Loon: On our arrival on July 30 a pair of loons was seen near camp where a pair had nested in the previous year; the next day we saw them out on the lake with a downy chick.

Red-throated Loon: Late in the evening of July 30 we heard one calling over the bog ponds behind our camp. On the next day two were seen on the bog ponds giving "peering" displays and we found a loon nest which appeared to be new and unused. This nest was in almost the same place as the one found in the previous year. Three loons, a male and two females, were in the area and these were seen flying together several times; they performed high, circling flights, gliding displays, and twice during the morning the "crescendo call" was heard. They were heard calling again in the early morning of August 1. I found a nest with two eggs on August 3 in a small patch of sedge out in the open in a distant pond. The fresh-looking eggs rested on a bare platform formed by the mat of vegetation which comprised this remnant sedge bog. The nest was almost at water level and the eggs were only six inches from the edge of the water. It seemed an odd place to build a nest, in view of the numerous small bog islets of *Sphagnum* moss, etc., which were nearby. Two eggs were still present when we checked the nest on August 4; on the following day we left the area. It would have been of interest to know the date of hatching of this late clutch.

In the morning and evening of August 4 we were treated to a distant chorus of vocalizations from the loons, two, or possibly all three, repeatedly calling together in a medley of plaintive, wailing, cat-like "merows"; then one, presumably the male, began giving the harsh, raucous "growling call" against the background of continued "merowing", producing a weird and wonderful effect.

The next morning, on our last day on Little Gull lake, the male flew up over the lake into the face of a storm; as it rose against the dark clouds it gave the harsh, rolling "gruk-gruk . . . grrruk . . . " call.

Mallard: A hen with seven fully-grown young, and three adults, July 31; a hen with two young about 2/3 grown, on the small lake to the south, August 4.

Pintail: A female with a brood of five or six downy young in the bog pond area, July 31. This record provides the first definite evidence of breeding for this species in northern Saskatchewan.

Green-winged Teal: A female with a brood of four, almost adult size, July 30.

American Widgeon: One on August 4 on the small lake just south of Little Gull Lake.

Ring-necked Duck: July 30, a female with a brood of five, several weeks old. July 31, a female with a brood of seven, about two weeks old; and a group of four females with broods which were already mixed when we sighted them late in the evening—there were 16 young, from one to three weeks of age. August 2, a pair on the lake. August 4, a female with a brood of four on a small lake south of Little Gull Lake.

Lesser Scaup: July 30, a female, in the bog ponds; July 31, a female, perhaps the same one, with a brood of five, about ¼ grown.

Bufflehead: July 30, a female with only one young, about 1/3 grown; July 31, a female with four young, 1/3 grown; August 4, a single female.

Surf Scoter: August 2, female with a brood of six, nearly full-grown, and another female with a brood of four, about 1/2 grown; August 3, these two females were seen in mid-afternoon close together, moving their families out into the centre of the lake.

Red-tailed Hawk: Several times late in the evening of July 31 near the bog ponds I heard a hawk call that sounded like a red-tail.

Bald Eagle: An immature eagle was seen on August 4.

Marsh Hawk: A male hunting low over the bog ponds on July 31 showed an immediate response and flew in to look at me when I made a squeaking sound. One was seen at a distance on August 2.

Osprey: One was seen flying low over the bog ponds late in the evening of July 30. Another was seen on August 3.

Pigeon Hawk: Late in the evening of July 30 while we were walking in the dunes adjacent to Little Gull Lake, a Pigeon Hawk suddenly appeared flying steadily toward us; it dropped down at the last moment so that it peered right into our faces just before it lifted and flew over our heads—it was a lovely, tense moment. I recorded two on July 31, and Argus reported a family group out on the dunes on the same day. Late in the evening of August 1, we saw two, evidently a pair, in "play" over the bog ponds — moving slowly across the ponds, intermittently swooping up and hovering together, then one gliding down and away from the other.

Sparrow Hawk: One with three fledged young July 31 and again on August 2.

Spruce Grouse: July 31, a family group, young nearly full-grown.

Sandhill Crane: We saw three Sandhill Cranes in flight about 10 miles east of Little Gull Lake from our plane while en route to our camp on July 30. The next day at camp we heard cranes calling early in the morning. On August 2, a flock of four, evidently a pair with two young, flew directly over our camp early in the morning. We saw this group again later in the day and also found their tracks in the sand dunes northwest of camp; their "probe-marks" were seen in several damp places in the sand where they had walked, and we wondered what they were finding. Two additional cranes were seen on August 4 on the big bog meadow south of Little Gull Lake, exactly where two were seen in 1961.

Sora: We flushed a Sora from a bog on the east side of Little Gull Lake on August 3.

Semipalmated Plover: Three shorebirds seen flying over the dunes (where previously recorded breeding) at Little Gull Lake on July 31, and one on August 1 were judged to be of this species. One was seen feeding on a beach at a small lake to the south on August 4.

Common Snipe: July 31, one gave distraction display in suitable nesting habitat and was presumed to be nesting; August 4, one in another place.

Greater Yellowlegs: August 1, a pair with an immature which could fly well were found deep within the dunes near small ponds. On August 4, one was seen on the small lake south of Little Gull Lake.

Baird's Sandpiper: Three shorebirds seen in flight at close range near ponds deep within the sand dunes west of little Gull Lake on August 1 were believed to be of this species, but this is a poor record.

Least Sandpiper: Records at Little Gull Lake in 1961 and 1962 and again in 1963 suggest the possibility that the Least Sandpiper may breed here. There are uncertain late season records (in 1963) for July 31 (a bird overhead), and August 1 (three overhead). On August 4, 1963 while walking along the edge of the dunes and beside a sedge bog south of our camp we flushed two sandpipers which by behaviour appeared to be an adult and a juvenile. After flying about briefly they returned and landed near us and the juvenile was collected. It was found to have a trace of down at the base of both mandibles, and the feet were a dull, brownish color. Later in the day a second immature bird, in the same plumage as the one collected, flew in and landed on a small, shallow pond far out in the dunes. When I approached the pond the bird walked toward me, feeding as it moved along; several times it approached to within three feet of me. The confiding nature of the Least Sandpiper has long been known (e.g., described by D. G. Elliot, 1895. North American Shore Birds. Francis Harper, N.Y.), but I found this bird difficult even to put to flight, and therefore felt that it might have been raised nearby. Certain other shorebirds which we found in the area during this period were undoubtedly migrants, e.g., a Semipalmated Sandpiper which was collected on August 1 (an immature), and small flocks of larger shorebirds (probably Baird's and Pectoral sandpipers) which were seen in flight over the dunes on August 1 and 4. Hence our Least Sandpipers could well have been migrants from the northeastern area. Further evidence of a migration of shorebirds was seen a few days later at Stoney Rapids, where unidentified "peeps", i.e., small sandpipers, either Least or Semipalmated, were seen. On August 6 a flock of eight flew in to the edge of the river beside the dock. They landed on some willow brush lying in the water and also waded in the shallows, but flew before I could get close. Three were seen flying over the river on August 7, and two were seen by a puddle on the airstrip when we were preparing to depart. There are, as well, earlier records of what were presumed to be fall migrants. A lone Least Sandpiper was seen by Lein and Sanderson at the dock at Stony Rapids, July 25 and July 26, 1964. Migrant shorebirds were noted by them earlier, a flock of four Pectoral-sized sandpipers having been seen flying down the Porcupine River on July 12, 1964. Thus there remains a lack of clear-cut evidence for breeding of the Least Sandpiper in the Lake Athabasca area, although their breeding here seems not improbable, especially in view of records in this locality of breeding Semipalmated Plover and Northern Phalarope.

Semipalmated Sandpiper: On August 1, I collected an immature female at a small pond in the sand dunes about 3½ miles west of Little Gull Lake. A double layer of bone was just beginning to develop on the cranium. Another one, in similar plumage, was closely observed on a sandy beach on the small lake just south of Little Gull Lake, August 4. On this latter date migrant shorebirds were clearly present, and these Semipalmated Sandpipers were undoubtedly transients.

Bonaparte's Gull: A single Bonaparte's Gull in immature plumage was seen flying over the dunes and out onto the small lake south of Little Gull Lake on August 4, but we saw no other gulls during the period of our visit.

Arctic Tern: July 31, three which were seen flying over the lake were presumed to be of this species. I saw an adult accompanied by an immature which was still begging for food, out on the lake, and three in the dunes on August 1.

Great Horned Owl: A freshly-shed feather from a Great Horned Owl was found on the edge of the dunes at Little Gull Lake, August 4.

Common Nighthawk: Two were seen on July 31.

Yellow-shafted Flicker: Two records, July 31 and August 2.

Olive-sided Flycatcher: One was identified by its distinct call on August 4.

Gray Jay: Three or more were recorded on each of three days, July 30, July 31 and August 2.

Common Raven: August 1, one; on August 4 we saw a group of four out in the dunes walking about and picking up something on the open sand, perhaps insects.

Common Crow: July 31, evidently a family group of five, seen about the bog ponds.

Boreal Chickadee: A family group on July 31, another on August 2.

Robin: On August 3, I saw a Robin on the large island, but no others were noted.

Rusty Blackbird: A family group was seen on August 2, an adult on August 4.

Common Redpoll: Several, presumably of this species, were heard overhead on July 31; several were heard in the jack pine and birch clumps in the dunes on August 1.

Savannah Sparrow: July 30, two; August 4, a family group.

Slate-colored Junco: July 31, one, and a family group; August 2, another family group.

Chipping Sparrow: Two were seen in the dunes, August 1; one south of camp, August 4.

White-crowned Sparrow: Two family groups were seen in birch-pine depressions in the sand dunes, August 1.

Lincoln's Sparrow: July 31, one; August 2, one in brief song early in the morning at our camp; August 4, one.

1966 REVIEW OF SASKATOON BIRD OBSERVATIONS

by **J. B. Gollop**, Canadian Wildlife Service, Saskatoon

This annual review of birds reported within a 40-mile radius of Saskatoon is more complete than in previous years (Gollop, Roy and Folker, 1963; Gollop and Gollop, 1964; Gollop, 1965; Gollop, Slimmon and Folker, 1966). It is based on approximately 4,500 records for 217 species from 101 contributors to the Saskatoon Bird Review, which was initiated in 1966 and modelled after a similar project of Dr. M. T. Myres and the Calgary Bird Club. The objectives of this periodic report are to develop and increase interest in birds among members of the Saskatoon Natural History Society, by encouraging their participation in an investigation of how many birds of which species do what, when and where in this district. Eventually, these records will be compiled and analyzed for a publication on the birds of Saskatoon and vicinity. The present paper is a summary of the more interesting reports from the first five issues of the Review.

Contributors: Ten people submitted more than 3,500 of the 4,500 observations received: J. E. Black, R. V. Folker, M. A. Gollop, Dr. and Mrs. C. S. Houston, Mrs. J. M. Pepper, W. S. Richards, J. F. Roy, J. A. Slimmon and the author. Twelve other observers contributed 25 to 100 records each: E. R. Clark, D. A. Classen, J. M. Gerrard, J. D. Hogg, S. M. Keay, M. R. Lein, C. A. Matthews, R. S. Miller, B. M. Rever, J. W. and M. J. Schmidt and Mrs. W. T. Shepstone. Specific reports by other contributors used in this paper are acknowledged in the text.

Breeding Season: At present it is estimated that 116 species of birds nest in the Saskatoon District. In 1966 data were submitted on 664 occupied nests and 118 broods of 76 species (Table 1). There were no breeding records of such common species as Rock Dove*, Catbird, Red-eyed Vireo, Yellow Warbler, Baltimore Oriole, Chipping and Song Sparrows. There are still six species believed to breed annually in the area for which no nests or flightless young have ever been reported: Cooper's Hawk, Belted Kingfisher, Blue Jay, Rufous-sided Towhee and American Goldfinch.

Probably the most notable ornithological event around Saskatoon this year was the influx of Long-eared Owls. C. S. Houston banded 50 young in 18 nests, most of which were found by J. W. and M. J. Schmidt and K. I. Ecklund (see also Houston, 1966). Lark Buntings were more common than in any recent year; an article on a colony near Clavet appeared in the September issue of the *Blue Jay* (Cohen and Rever, 1966).

Four species not known to breed in the area in the last six years at least, were found nesting: **Piping Plover,** a nest on an alkali slough near Strehlow had four eggs on 8 June (J. A. Slimmon). **Franklin's Gull:** a colony that may have had 500 nests was found on Rice Lake in June by R. T. Sterling. **Cliff Swallow:** there was a colony with 70± nests under a bridge near Environ on 19 June. By 14 August practically all of these nests had been destroyed but 80± nests, a few with young, were found under another bridge six miles away. Presumably, this was the same colony (J. B. Gollop). **Pine Siskin:** R. R. Cohen discovered a nest with three eggs on 15 June on 7th Street and another with young on the University Campus on 15 August, the latter in an American elm *(Ulmus americana)* instead of the usual conifer.

Migration: The spring migration of 1966 produced significantly smaller than normal numbers of geese, Sandhill Cranes, shorebirds, thrushes, warblers and sparrows. A spring that began with indications of a very early migration turned out to be the latest on record. Migrant warblers and flycatchers, in particular, were late, some not arriving until the first week in June. The largest migration was apparently overnight on 5 and 6 May and continued for the next two days and nights. It involved geese, ducks, cranes, shorebirds, swallows, crows, warblers, blackbirds, sparrows, longspurs and probably other species. The most unusual spring reports were of shorebirds migrating west-northwest across the south side of the city and a crow migration in May. These and other records of visible migration are described in more detail in another article in this issue.

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*Common names used in this article are from the AOU Checklist (1957).

Fall migration was not noticeably early or late but it was disappointing —fewer migrants spent less time in the district than usual. This was particularly true of thrushes, most warblers and some sparrows. Based largely on small samples of birds banded by Dr. and Mrs. C. S. Houston, three waves of warblers were indicated: **20-25 August:** Black-and-white, Tennessee, Yellow, Northern Waterthrush and Wilson's; **7 and 8 September:** Tennessee, Cape May, Myrtle, Chestnut-sided, Bay-breasted, Blackpoll, Palm, Ovenbird, Northern Waterthrush, Mourning and Wilson's; **17 and 18 September:** Black-and-white, Orange-crowned and Myrtle. Fewer birds than usual were heard migrating on fewer nights. Only 22 birds were found dead at the CFQC-TV tower in 13 inspections between 7 August and 24 September.

For most species there are too few data to determine whether they were more abundant during the spring or the fall migration in this district. Other things being equal, and they seldom are, summer production added to spring populations should result in more birds on southward than northward migration through an area. In fact, only three species did appear to be more common in fall than in spring: Rough-legged Hawk, Osprey and Rusty Blackbird. Four species recorded in fair numbers in April and May were not recorded again in the fall of 1966: Common Loon, Double-crested Cormorant, Red-breasted Merganser and Golden Plover. Nine others appeared in noticeably smaller numbers this fall: Ring-necked Duck (one record), Lesser Scaup, Common Goldeneye, Common Merganser (one record), Bufflehead (one record), Red-breasted Nuthatch (one record), Gray-cheeked Thrush, White-crowned and Fox Sparrows.

Several migrants were more common this year than in previous years. Nine Common Loons were reported on seven dates between 23 April and 17 May. There were more records of Double-crested Cormorants than in the previous five years combined (12 birds on six dates from 28 April through 29 May). Common Mergansers with 183+ birds on 21 days between 31 March and 6 May and Red-breasted Mergansers (49 birds on 13 dates from 16 April through 27 May) were more abundant than in any other spring on record. There was only one previous report of an Osprey until this year when one was seen on 27 May and seven birds were reported on six dates between 19 and 30 September. Traill's Flycatchers were much more common than in any other year (45± birds between 31 May and 7 June) and seven birds—in the hand—between 19 and 23 August).

Winter: Bohemian Waxwings have been common in the last two winters and Snowy Owls have been uncommon, which is probably their usual status. Eleven species were recorded in larger numbers on the 1966 Christmas Bird Count than in any of the previous eleven counts, including Mallard, Common Goldeneye, Blue Jay, Black-billed Magpie, Black-capped Chickadee and Starling. Snow Buntings were common until about mid-December but have apparently decreased significantly since then and, for the first time, none were recorded on the Christmas Count. Redpolls, Pine and Evening Grosbeaks have been much less common to 31 December than they were last winter.

Other records: The addition of three new species to the area list this year brings the total to 260 species. The new birds were: **Piping Plover**: On 14 May a single bird was studied on Buffer Lake by R. R. Cohen, B. M. Rever, A. T. Moran and G. O. Michalenko (See also Breeding Species). **Yellow-breasted Chat**: J. E. Black studied a single bird south of Moon Lake on 20 July. On 21 and 22 July it was seen and heard by J. F. Roy and the author. It could not be found on 23 July or 8 August. **Dickcissel**: On 18 July a single bird was singing in an alfalfa field on Preston Avenue, seven miles south of the city. Two birds were studied in the same field the next morning in the course of an hour's nest hunting by J. E. Black, J. A. Slimmon and the author. No birds could be found on 23 July when the field was partly cut.

On 23 April a hybrid Yellow-shafted X Red-shafted Flicker was studied for 30 minutes by J. F. Roy, A. J. Nijssen, R. V. Folker and J. E. Black. As it was followed for about half a mile south of Pike Lake, the salmon coloring under the wings and tail was clearly visible.

More intensive coverage of the district and better organization of reports produced a few other interesting situations that should be checked more closely in the future to determine whether or not they are normal. Lesser Scaup, which breed fairly commonly in the district, were not reported between 17 August and 4 October. Common Goldeneye, a common spring migrant and probably a rare breeding species here, were not recorded from 20 July to 4 October. There were no adult Cowbirds, a common breeding species, reported after 16 July.

Marsh Hawks provided an example of apparent temporary emigration. Before the young begin to fly, there is about one adult male (gray-backed bird) for every adult female (brown) Marsh Hawk. Shortly after the young (brown in both sexes) begin flying, however, the adult males practically disappear and few gray birds are reported for the next six to eight weeks. This can be demonstrated by recording the colour of every Marsh Hawk seen through July, August, September and October. This year between 5 August and 1 October, three gray and 133 brown hawks were recorded for a ratio of 1:44. Assuming four flying young per pair and that every pair was successful, the expected ratio would have been one gray for every five brown birds. Between 2 and 16 October, males appeared again and the ratio among 65 Marsh Hawks was one gray: four brown, almost the expected ratio. It may be that the October males are not the same individuals or age group as the birds that leave in July. More observations are needed to confirm temporary or early adult male emigration from this area and data from other areas are required to determine how widespread it is and, possibly, where the males go.

Some species occurred in much larger flocks than ever before reported: 296 Western Grebes on Patience Lake on 4 May, and 5,100± Whistling Swans on Goose Lake on 30 October. Buffer Lake had 15,000± ducks, mostly Pintails, on 14 May, a large number for so late a date. There were, 1,700± male Blue-winged Teal on Rice Lake on 30 July; 6,000 American Coots on 4 September on Proctor Lake; at least 130 Common Snipe on one part of Rice Lake on 10 September and 44 American Avocets north of Grandora on 31 July. On 30 April, 11,000± white-headed gulls (probably Ring-billed) flew into Rice Lake from the east to roost and on 26 August at least 12,000 Franklin's Gulls roosted on Strehlow Pond. A flock of 130 nighthawks flew southeast over the city on 21 August. Eleven Western Kingbirds on 8 August south of Saskatoon on Preston and 11 Baltimore Orioles in the same area on 11 August are the largest flocks of these species ever recorded here. In late August or early September a flock of blackbirds that covered about 10 acres of stubble near Smuts may have numbered 20,000 birds (W. J. D. Stephen).

On the other hand, 29 species were represented by stragglers on only one, two or three dates through the year. Those reported only once were two White-winged Scoters (27 May), two Turkey Vultures (18 September), and single individuals of Ruddy Turnstone (23 May), Hawk Owl (14 January), Red-headed Woodpecker (4 June), Connecticut (2 June), Canada (4 June), Black-throated Green (25 May) and Chestnut-sided (8 September) Warblers, Western (13 August) and Scarlet (30 August) Tanagers. The following species were reported only on the dates given and were singles except where there is a number in parentheses: Black - crowned Night Heron, 23 July and 13 August; Broad-winged Hawk, 6 (3) and 14 May; Peregrine Falcon, 8 and 14 May; Whooping Crane, 22 April (2, V. J. Harper) and 2-4 May (2, R. A. Whitlock); Knot, 13 (6) and 14 (4) May; Herring Gull, 26 and 30 (3) April and 1 May (2); Bonaparte's Gull, 20 and 26 (2) May; Common Tern, 21 (2) and 23 (3, R. R. Cohen) May and 2 June; White-rumped Sandpiper, 7 and 16 (3) June; Saw-whet Owl, 28 June and 30, 31 December; Common Raven, 28 October (7) and 21 November (A. R. Smith); Townsend's Solitaire, 28 March and 4 July; Olive-sided Flycatcher, 30 May, 1 June, 22 August; Long-billed Marsh Wren, 1 August and 17 September; Mockingbird, 21 May (W. J. Brucks, A. Lambert) and 8 July (Mrs. J. A. Smith); Ruby-crowned Kinglet, 8 and 14 May and 25 September; Philadelphia Vireo, 11 September and 19 October (a month later than any previous date); Bay-breasted Warbler, 30 May, 2 June and 7 September.

It is interesting to note that the paragraph above on large numbers gives details on more than 71,000 individuals of 13 groups (17± species) of birds; the following, longer paragraph deals with only 82 individuals of 29 species. The respective ratios are 4000± birds per species and 3 birds per species. It should be obvious that the occurrence and activities of large numbers of birds of common species are of much greater importance in determining the primary roll of the Saskatoon district in the ecology of the North American birds than are records of species represented by stragglers. The behaviour of common species best defines the habitat, climate, etc., of an area in terms of its avifauna. It makes little difference to our understanding of the Saskatoon environment whether two Dickcissels and one Yellow-breasted Chat have occurred here or whether no albatrosses, no Mississippi Kites and no Black-chinned Sparrows have ever occurred here. The fact remains, however, that those individuals which are least representative of a species as a whole, e.g., extremely early or late birds of common species, and stray individuals of rare species, command much greater interest. While this is natural and it is commendable to document the occurrence of an abnormal individual (because, for instance, it may be the forerunner of a species that is expanding its range), it is unfortunate that familiarity breeds such contempt that many more significant observations of concentrations and activities of common species go unrecorded.

There were not enough records of any common species in this area in 1966 from which to adequately determine its status at any particular season. Information was particularly lacking as to when a species, whether breeding or migrant, became *common* in spring and *uncommon* in fall. For migrants there was little on when they became *uncommon* in spring and *common* again in late summer or fall. Such determinations are more difficult but, at the same time, are more significant than dates of first, last or stray individuals.

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TABLE 1.

Breeding species in the Saskatoon district with 1966 breeding records

	Active nests	Broods,** coveys
*Red-necked Grebe	—	1
Horned Grebe	10	1
Eared Grebe	1	6
Pied-billed Grebe	—	2
*Great Blue Heron	—	—
*American Bittern	—	—
*Canada Goose	1	—
Mallard	11	10
Gadwall	1	13
Pintail	3	4
Green-winged Teal	—	1
Blue-winged Teal	2	1
American Widgeon	—	7
Shoveler	1	2
Redhead	7	1
Canvasback	12	16
Lesser Scaup	—	3
*Common Goldeneye	—	—
Ruddy Duck	2	8
*Sharp-shinned Hawk	—	—
*Cooper's Hawk	—	—
Red-tailed Hawk	2	—
Swainson's Hawk	3	—
*Ferruginous Hawk	1	—
Marsh Hawk	5	—
*Pigeon Hawk	—	—
Sparrow Hawk	1	—
Ruffed Grouse	—	—
Sharp-tailed Grouse	1	2
Ring-necked Pheasant	—	1
Gray Partridge	1	20
*Virginia Rail	—	—
Sora	3	—
American Coot	43	3
*Piping Plover	1	0
Killdeer	4	1
*Long-billed Curlew	—	1
Upland Plover	—	—
Spotted Sandpiper	—	—
Willet	—	—
Marbled Godwit	1	1
American Avocet	5	2
Wilson's Phalarope	1	—
*Franklin's Gull	120+	—
Black Tern	1	—
Rock Dove	—	—
Mourning Dove	2	—
Black-billed Cuckoo	—	1
Great Horned Owl	14	2
Burrowing Owl	—	—
Long-eared Owl	16	2
Short-eared Owl	1	—
*Saw-whet Owl	—	—
Common Nighthawk	1	—
*Belted Kingfisher	—	—
Yellow-shafted Flicker	1	—
*Yellow-bellied Sapsucker	1	—
Hairy Woodpecker	—	—
Downy Woodpecker	—	—
Eastern Kingbird	6	—
Western Kingbird	2	—
Eastern Phoebe	1	—
Least Flycatcher	2	—
Horned Lark	9	—
Tree Swallow	5	—
Bank Swallow	23	—
Barn Swallow	3	—
*Cliff Swallow	80±	—
*Purple Martin	—	—
*Blue Jay	—	—
Black-billed Magpie	23	—
Common Crow	14	—
Black-capped Chickadee	—	—
*Red-breasted Nuthatch	—	—
House Wren	—	1
Long-billed Marsh Wren	—	—
Catbird	—	—
Brown Trasher	1	—
Robin	3	—
Swainson's Thrush	—	—
Veery	—	—
Mountain Bluebird	—	1
Sprague's Pipit	—	1
Cedar Waxwing	5	—
Loggerhead Shrike	3	—
Starling	8	—
Red-eyed Vireo	—	—
Warbling Vireo	—	1
Yellow Warbler	—	—
Ovenbird	—	—
Yellowthroat	—	—
*American Redstart	—	—
House Sparrow	15	—
Bobolink	2	—
Western Meadowlark	9	—
Yellow-headed Blackbird	45	1
Red-winged Blackbird	54	—

	Active nests	Broods,** coveys
Baltimore Oriole	—	—
Brewer's Blackbird	2	—
Common Grackle	3	—
Brown-headed Cowbird	2+	—
*Pine Siskin	2	—
American Goldfinch	—	—
*Red Crossbill	—	—
Rufous-sided Towhee	—	—
Lark Bunting	10	—
Savannah Sparrow	7	1
*Grasshopper Sparrow	—	—
Baird's Sparrow	3	—
*Le Conte's Sparrow	—	—
Vesper Sparrow	7	—
Lark Sparrow	—	—
Chipping Sparrow	—	—
Clay-colored Sparrow	15	—
Song Sparrow	—	—
Chestnut-collared Longspur	—	—

Totals: 664 occupied nests
118 broods and coveys
76 species

* Rare or irregular (Estimated that fewer than 5 pairs per year laid eggs since 1960).

** Flightless young out of nest or flying young being fed by adult.

VISIBLE MIGRATION — SASKATOON, 1966

by **J. B. Gollop**, Canadian Wildlife Service, Saskatoon

Most migration records are of birds pausing between breeding and wintering areas — birds in trees or bushes, on the ground, on water or making local flights. Many of these species migrate at night. Impressive flights of birds by day — visible migration — are not frequently seen near Saskatoon, but 1966 was exceptional in this respect. Because of this, visible migration is discussed here in some detail to encourage the collection of more information on this phenomenon.

Visible migration was noted on 42 days in the spring: nine days in March after the 18th, 17 through April and 16 in May to the 27th. Through the fall, birds were seen migrating on 23 days: five in August after the 6th, eight in September and 10 in October to the 29th. The major species in March were eagles on six days, crows on five, Horned Larks and magpies on one day. In April hawks were migrating on eight days, ducks on seven, crows on six, eagles on five, Evening Grosbeaks on four, geese and cranes on two days. In May shorebirds were evident on nine days, blackbirds on six, Franklin's Gulls, Black Terns and swans on four, crows, swallows and other passerines on three, geese and loons on two, pelicans, hawks and longspurs on one day. There was much less variety in the fall: nighthawks (4 days) and Sandhill Cranes (1) in August; cranes (5), hawks (4), crows (3), nighthawks (2), geese and swallows (1) in September; and hawks (7), crows (3), eagles (2) and ducks (1) in October. Single Bald Eagles were southward bound on 13 and 26 November. These observations confirm previous years' experience that several species are seen migrating through this area only in the spring. Nighthawks are the only birds recorded on southward but not northward migration.

Probably the most spectacular migrations in 1966 were those of shorebirds on 6 May—1,100± birds in 101 flocks in less than two hours — and on 26 May — 1,880± in 27 flocks in just over one hour. Both early morning flights were moving west-northwest over the Jubilee Park area. Also impressive were 20 strings totalling 645 Golden Plover in a 45-minute period on the evening of 14 May. While shorebird migrations are seldom seen, it is known that they occur during May. However, a migration of crows on 6 and 7 May (230 and 40 birds, respectively), a month after crows have usually arrived or passed through the district, has not been previously recorded. There was little unusual about fall visible migration although large flights of nighthawks (20 and 21 August) and crows (19, 20, 26 September and 8 October) are not recorded every year.

Most of the spring records above were made from four observation points along the South Saskatchewan River. On 35 days between 1 April and 28 May the author spent from one to two hours before 7:00 a.m. at sites one, three and five miles south of Saskatoon and two miles north. The locations were chosen for their proximity to town and because the river is an added attraction to waterfowl and other species. The main requirement for an observation point is as clear a view as possible of distant horizons in all directions. Other spring and practically all fall migrations were detected from York Avenue, or on drives in the country on evenings and weekends.

Predicting these flights is difficult, although the major day-time migrants —hawks, crows and cranes—usually move on a tail-wind. Hawks and eagles in the fall often precede a storm from the northwest. An early morning or late evening flight of shorebirds, waterfowl and other birds is probably the remnant or the vanguard of a night migration.

Because of the restricted period of observation, the temporal pattern of a species' diurnal migration cannot necessarily be determined from the data collected in 1966. One exception may be the hawks. The city of Saskatoon is apparently on a major hawk migration route — for this part of the world. This allows detection of flights throughout the day, particularly by housewives. While most hawk and eagle migrations occur between 10:00 a.m. and 3:00 p.m., there was a "heavy" migration (24 birds) between 6:00 and 7:25 p.m. on 14 April. Nighthawks are a species for which significant flights are most frequently recorded when they pass over the city and this year, as in 1964, the largest numbers were seen between 5:00 and 7:30 p.m. (Gollop, *Blue Jay* 23: 13-14, March, 1965).

It is often difficult to decide whether a bird is making a lengthy migration flight or a shorter local flight. Probably the most important criterion is the direction of flight and the distance over which the direction is maintained. Apparently all species crossing the Saskatoon district during the day fly northwest in spring and southeast in fall. Depending on the species and probably on weather conditions, the spring direction, for example, may vary from almost due west (blackbirds) to north (Evening Grosbeaks). A river or a lake may temporarily change a flock's direction. The number of birds and their height are other criteria useful for some species. In compiling data for this article, many records were rejected because the birds may have been flying to or from roosting or feeding areas or making other local flights. White-headed gulls and ducks are the major problem species in this respect.

Some diurnal migrants have different flight behaviour in spring and fall. For instance, crows in spring begin appearing in the southeast sky as early as 5:30 a.m. and usually continue moving throughout the day, occasionally until 7:00 p.m. On that migration they move out of sight to the northwest as loose flocks of less than 20 birds and as individuals apparently not associated with what is normally considered to be a flock. They usually fly at a constant altitude in a direct line at a steady rate. In fall, however, major migrations are apparently restricted to the period from 10:00 a.m. to 4:00 p.m. The birds are in close-packed flocks of 50 to 1,000 and there is often great variation in altitude. Occasionally there appears to be much confusion or conflict, as evidenced by circling, sailing and temporary changes in direction. On the other hand, hawk migrations have similar characteristics in both directions.

Collections of birds at TV-towers,

observations of birds moving against the moon and records of birds pausing on migration indicate that night migrants often move simultaneously over wide areas. However, there appears to be little information on daytime migration in the Prairie Provinces. While there is not yet enough data from Saskatoon to define the characteristics of such migrations there, it would be interesting to build up a prairie-wide picture to determine the timing and actual routes of these flights throughout western Canada. The information required for such a Centennial project is date, location and period of observation, weather conditions, route and time of flights, and the numbers of birds and flocks of each species over a period of five years.

REPORT ON BARN OWL AT REGINA

by **H. C. Smith**, 1357 Minto St., Regina

At approximately 4:30 p.m. on May 3, 1966 my wife and I were driving north down a dirt road which goes past the west end of the Provincial Correctional Institute east of Regina. Trees line both sides of this road for approximately ¼ mile, and there were no leaves on the trees at this time. I had stopped the car just prior to turning around when my wife drew my attention to a large light-coloured bird sitting in a tree. I immediately got out and put my field glasses on it. While I was looking at it through my glasses it turned its head toward me. The mottled, cream-coloured back, light cream-coloured breast, and distinctive heart-shaped face identified it as a Barn Owl *(Tyto alba)*. The tree in which the bird was sitting was approximately 25 - 50 feet from the car and the bird was approximately 15 feet off the ground. The bird was viewed in good light but, for only a minute before it took flight. As soon as it took flight I checked Peterson's field guide (1961) for confirmation of my identification. The description of the Barn Owl outlined in the guide fit the bird I had just observed.

My wife and I went into the Provincial Correctional Institute grounds and contacted Mr. and Mrs. Al Binnie to ascertain if they had seen this bird. Although they live on the grounds and make regular observations in the area, the Binnies had not previously seen the bird. All four of us then began a search of the trees in the grounds. The bird was flushed on three occasions, but unfortunately the Binnies were never able to observe it while sitting. While in flight this bird appeared to have a long wing span. Although a skilful flier, its wing beat did not seem to be exceptionally strong. The bird gave the impression to me of floating through the air rather than flying.

When Glen Fox (1963) reviewed the occurrences of the Barn Owl in Saskatchewan, he listed records for Saskatchewan as follows: Aylesbury, May 5, 1924; Balcarres, May 1, 1910; Kindersley, May 18, 1960. Thus the date of this record for Regina coincides with the dates when this species has previously been seen in Saskatchewan.

This bird is listed as a "straggler" in the *Field check-list of Saskatchewan birds*, and as "casual" by Peterson (1961). Belcher (1961) has no record of this species for Regina.

R. W. Nero (pers. corresp.) reports the following records for Manitoba: La Rivière, April 8, 1945; Whitewater Lake, October 1927; Sperling, January 1925; and St. Anne's, November 6, 1912. Salt and Wilk (1966) do not list this species as occurring in Alberta.

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SPRING BIRD PHENOLOGY ON ST. LAWRENCE ISLAND, ALASKA

by **Spencer G. Sealy,** Dept. of Zoology, U.B.C., Vancouver, B.C.

During the summer of 1966, the writer was able to record the first arrival of a number of species of Alaska birds when he was stationed near Gambell (63′ 51″ N, 171′ 36″ W) on St. Lawrence Island, studying the breeding biology of two species of plankton-feeding alcids. Field work

TABLE 1 — BIRD PHENOLOGY CHART

Gambell, St. Lawrence Island, Alaska

Species	**Arrival Date, 1966**	**Arrival Date, Fay and Cade, (1959)**
*Pelagic Cormorant *(Phalacrocorax pelagicus)*	....	late April
*Emperor Goose *(Philacte canagica)*	....	May 10
*Oldsquaw *(Clangula hyemalis)*	....	resident
*Common Eider *(Somateria mollissima)*	....	early May
*King Eider *(Somateria spectabilis)*	....	April
*Glaucous Gull *(Larus hyperboreus)*	....	April
*Herring Gull *(Larus argentatus)*	....	....
*Ivory Gull *(Pagophila eburnea)*	....	"early spring"
*Black-legged Kittiwake *(Rissa tridactyla)*	....	May 10
*Common Murre *(Uria aalge)*	....	late April
*Thick-billed Murre *(Uria lomvia)*	....	May 19
*Snow Bunting *(Plectrophenax nivalis)*	....	May 1
Sandhill Crane *(Grus canadensis)*	May 15	middle May
Pigeon Guillemot *(Cepphus columba)*	May 17	middle May
Horned Lark *(Eremophila alpestris)*	May 19	....
Pomarine Jaeger *(Stercorarius pomarinus)*	May 20	middle May
Crested Auklet *(Aethia cristatella)*	May 21	May 20
Least Auklet *(Aethia pusilla)*	May 21	....
Tufted Puffin *(Lunda cirrhata)*	May 23	early June
Yellow-billed Loon *(Gavia adamsii)*	May 23	May 16
Fulmar *(Fulmarus glacialis)*	May 23	April
Whistling Swan *(Olor columbianus)*	May 24	May 24, 1956, 23 miles south Gambell
Wheatear *(Oenanthe oenanthe)*	May 25	....
Parasitic Jaeger *(Stercorarius parasiticus)*	May 26	....
Lapland Longspur *(Calcarius lapponicus)*	May 28	May 20
Steller's Eider *(Polysticta stelleri)*	May 28	late May
Red Phalarope *(Phalaropus fulicarius)*	May 29	May 20-30
Long-tailed Jaeger *(Stercorarius longicaudus)*	May 29	....
Pintail *(Anas acuta)*	May 30	late May
American Golden Plover *(Pluvialis dominica)*	May 30	....
Ruddy Turnstone *(Arenaria interpres)*	May 30	....
Rock Sandpiper *(Erolia ptilocnemis)*	May 30	May
Dunlin *(Erolia alpina)*	May 30	May 19
Semipalmated Plover *(Charadrius semipalmatus)*	May 31	May 28
Gyrfalcon *(Falco rusticolus)*	June 1	May 21
Horned Puffin *(Fratercula corniculata)*	June 1	May 15-20
Western Sandpiper *(Ereunetes mauri)*	June 6	....

* Species present at the time of my arrival in Gambell on May 13, 1966

began on May 13 and continued till September 14. Observations presented here were made on land within a three-mile northeast-to-south radius of Gambell on the northwest cape of the island and offshore on the Bering Sea. Typical winter conditions prevailed until about the end of the first week of June with temperatures ranging between 28°F. and 40°F. By June 3 snow melt had begun on Sevuokuk Mountain, about two miles east of Gambell, and on portions of the tundra. The Bering Sea ice had broken into floe ice about the middle of April providing leads and open water where seabirds abounded.

Phenology concerns itself with a study of the phenomena of plant and animal life in relation to seasonal changes. The scientific value of phenological data has been aptly discussed and defended by Glendenning (1943) and Leopold and Jones (1947). The former author states that phenological data may be of no scientific value if nothing is done with the records beyond personal comparison year by year. However, "phenology when properly organized goes much further than this, and when the data from hundreds of observers are sifted, tabulated and averaged some striking facts relative to climate, wild life and cycles are often revealed." Phenological lists are few for arctic and subarctic regions, obviously owing to the lack of observers in these areas at the proper time. The purpose of this note is to record the "first appearances" of some birds in the vicinity of Gambell in 1966 (see table 1). It is realized that one year of observations does not provide significant information as it stands alone; however, many avian spring arrival dates have been previously recorded in this area by Fay and Cade (1959) and provide a basis for comparison. Table 1 shows the spring arrival dates for 25 species of birds plus 12 species already present in the area at the time of my arrival in Gambell on May 13. Where possible, spring arrival dates for the same species have been taken from Fay and Cade *(op. cit.)*; those species with spring arrival dates for more than one year have been averaged to give the date which appears in table 1.

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POSSIBLE SIGHTING OF A GREEN HERON

by **C. A. Matthews**, 827 Fourth Ave.,
Saskatoon

On June 22, 1966 Roy Murray and I were driving along a small creek draining into Payne Lake east and south of Radville, Saskatchewan. Sitting on pasture land close to the creek were three Black-crowned Night Herons, with their characteristic long crests. A few feet from the nearest night heron was a bird about two-thirds of the size of the night herons, a much darker bird with no crest but with much brighter coloured legs. When we stepped out of the car, the smaller bird flew off to the northeast while the night herons remained. We believed it to be a Green Heron.

The A.O.U. *Check-list of North American birds* (1957) states that the Green Heron breeds in southeastern South Dakota and in spring and summer will wander north to southern Manitoba (Brandon) and to northeastern North Dakota. It is not listed in *Birds of Alberta* by Salt and Wilk (1966) and is not on the Saskatchewan field check-list, nor is it listed for either of these provinces in Earl Godfrey's *Birds of Canada* (1966).

It should be stressed that this report is just of a possible sighting, not a positive observation of a Green Heron, but it will serve to alert people in the area to the possibility of a wanderer appearing.

MOURNING DOVE NEAR FORT SMITH, N.W.T.

by **E. Kuyt**, Canadian Wildlife Service, Fort Smith

Salt and Wilk (1966) indicate that in Alberta the Mourning Dove *(Zenaidura macroura)* breeds mainly in river valleys and coulees and in lightly wooded parklands. These authors report the Mourning Dove as rare in northern Alberta, but occurring at least as far north as Fort Vermilion and Fort Chipewyan. Nero (1963) does not report the Mourning Dove from the area in Northern Saskatchewan where he carried out studies in 1960, 1961 and 1962, nor does he mention it from an exhaustive survey of published and unpublished records of other workers, chiefly in the area within 30 miles of Lake Athabasca. Stewart (1966) has not listed the Mourning Dove among birds observed in 1955 in the Slave River-Little Buffalo River area.

On August 26, 1966 my wife and I observed a Mourning Dove at close range in the vicinity of the D.O.T. radio station about five miles S.E. of Fort Smith. The record was made a few miles south of the N.W.T. boundary. Both observers are familiar with the bird from previous observations in Saskatchewan. The dove was studied through 7 x 50 field glasses as it perched on a branch of a dead jackpine.

Mr. Henry Mann of the Northwest Territories Game Section Staff later informed me that he had seen a Mourning Dove on September 18, 1966. The dove was observed near Salt River. That location, about 20 miles N.W. of Fort Smith would place it in the Northwest Territories, about 100 miles N.W. of the Fort Chipewyan location given by Salt and Wilk.

Finally on September 30, 1966 I saw — on two occasions — a Mourning Dove less than a mile north of Peace Point in Wood Buffalo National Park. This bird was feeding on the road.

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A SIGHT RECORD OF THE RED PHALAROPE IN ALBERTA

by **Wayne Smith**, 8220 Elbow Drive, Calgary and **Richard Klauke**, 2043 - 35th Ave., S.W., Calgary

According to Salt and Wilk in their *Birds of Alberta*, revised edition, 1966, there are few definite records for the Red Phalarope *(Phalaropus fulicarius)* in Alberta: a specimen taken near Didsbury in September, 1903; one collected at Beaverhill Lake in September, 1925; and a female collected on Pigeon Lake on July 13, 1960. There are also sight records from Banff and Beaverhill Lake.

On October 23, 1966 a Red Phalarope in winter plumage was seen on Carseland Dam by Bob Masters, Kevin van Tighem, and ourselves. The Carseland Reservoir is some 30 miles southeast of Calgary on the Bow River. We saw the phalarope first at about 3:30 p.m. within a few feet of the shore, and observed it with binoculars and a spotting scope for over half an hour. It was very tame and Richard Klauke was able once to approach within four feet of it. It flew off several times but always returned to within a few feet of where it flew from. All field marks—the clear gray back, short stubby beak, yellow legs, black ear patch and black along the back of neck—were seen by all from a few feet. The bird appears to have been an immature since the yellow at the base of the beak was absent. The bird was at first thought to be a commoner species, the Northern Phalarope, for it had white wing stripes, unlike the Wilson's Phalarope, but the stouter beak, unstreaked back and yellowish legs convinced us that it was the rarer Red Phalarope.

On October 30, 1966 a Red Phalarope was seen on Cochrane Lake by Bob Masters and ourselves. Cochrane Lake is about 20 miles west of Calgary. This bird also was in winter plumage, and we viewed it about 40 feet from the shore with a 30-power scope. The weather was cool and windy as dusk approached. Once again, however, because of the unstreaked back, stouter bill and yellowish legs we felt positive that our identification was correct.

MORE BALD EAGLE SIGHTINGS IN THE LAKE ATHABASCA REGION

by **Brian Wood**, 34 Qu'Appelle Apts., Regina

As an addition to Wayne Davis' account of Bald Eagle *(Haliaeetus leucocephalus)* sightings *(Blue Jay,* 24:160-167), I would like to report the location of three nests northwest of Lake Athabasca (74-N-14-W) in the summer of 1966. The area referred to is in the northern part of the Canadian Shield in a region of granite rock outcrop, muskeg, and jack pine.

On June 2, two mature eagles were sighted near Nettle Lake. During the following week these eagles were observed frequently but no nest site was located.

Two eaglets in the down condition were observed at Dragon Lake on June 10. Their nest was located in a live jack pine approximately 20 yards from the lake.

On my return to Nettle Lake, June 13, a pair of mature eagles was located with their nest containing young. This nest was located in a prominent jack pine about 40 yards from the lake. The young were very vociferous but unable to leave the nest. Although I could not observe the nest, nest building material up to one inch in diameter was found at the base of the tree. Droppings were numerous and three unidentified fish skeletons were found four yards from the tree. I don't believe these were the same eagles as the ones seen on June 2. In eight sightings the birds seen previously were never observed near the area in which the eagles with the young were located.

On August 14 another Bald Eagle nest containing young was located on Northwest Bay of Tazin Lake but it was impossible to determine the number of young.

P.N.R.S. NEST RECORDS FOR 1967

Careful records of breeding birds, both common and uncommon, add to our information about resident species. Every birder familiar with the local species in this area is urged to complete nest records cards and submit them to

PRAIRIE NEST RECORDS SCHEME
SNHS, Box 1121, Regina, Sask.

Any person who can contribute should write for cards (give estimated number needed) to the above address.

CO-OPERATIVE SPRING MIGRATION STUDY

Records are again requested for the continent-wide survey being made under the auspices of the U.S. Fish and Wildlife Service. As soon as it is available, we shall have a list of species for which reports are wanted; please write for the list and then submit your records by June 15, 1967, to

Mrs. Mary Houston
863 University Drive, Saskatoon

LOOK FOR OWL NESTS

If you know of any nesting Great Horned Owls, or other owls, please write or telephone collect as soon as you find the nest, to

Dr. Stuart Houston or
Mrs. Stuart Houston
863 University Drive, Saskatoon.
Telephone 244-0742

A HIPPOBOSCID FLY RECORD FOR SASKATCHEWAN

by **Spencer G. Sealy,** Department of Zoology, U.B.C., Vancouver

Members of the family Hippoboscidae are small flies, usually with wings, that are parasitic upon birds and mammals. They are probably descended from ancestors belonging to the Muscidae which underwent modification in structure as a consequence of a parasitic mode of life (Edwards, *et al,* 1939:118). Their strong and flattened bodies possess spider-like legs with well developed claws which enable them to cling to the feathers or hair of the host and to move quickly about on the host's skin. They are viviparous, the egg hatching within the female's body and the larva being retained within her body and nourished there till it is fully developed. Only one larva is carried at a time and when it is eventually extruded it pupates at once (Edwards, *et al, op. cit.*)

On May 31, 1965 a specimen of *Ornithoctona erythrocephala* (Leach) was taken from an adult male Broad-winged Hawk, *Buteo platypterus* (Vieillot), four miles south of Kenosee Lake, Moose Mountain Provincial Park, in southeastern Saskatchewan. The fly, now preserved in the G. J. Spencer Entomological museum at the University of British Columbia, was found in the upper tail coverts of the hawk.

The spatial distribution of integral ectoparasites, such as the Hippoboscidae, is irrevocably tied up with the presence or absence of appropriate hosts (Bequaert, 1954:27). Thus, one would not expect to find a given species of hippoboscid in an area which is devoid of a suitable host (one on which the parasite can maintain itself through successive generations). However, according to Bequaert (*op. cit.* :28) the distributions of host and parasite do not always coincide, hence one must be careful when discussing the probable distribution of such parasites. *O. erythrocephala* has previously been recorded from the Broadwing in Alberta (Strickland, 1938) and Manitoba (Bequaert, *op. cit.* :190), provinces adjacent to Saskatchewan, as well as from four other Canadian provinces. Its occurrence in Saskatchewan has not previously been reported (Bequaert, *op. cit.*:190; 1957 :527) ; in fact, only one hippoboscid species, namely, *Ornithomyia fringillina* (Curtis) (McAtee, 1922) has been recorded here. Since the Broadwing ranges throughout the wooded portion of Saskatchewan and since this hippoboscid has been recorded from both Alberta and Manitoba from this host, it comes as no surprise that it was found in Saskatchewan.

This observation was made while M. R. Lein, R. Sanderson and I were assisting Dr. R. W. Nero in ornithological studies in the Moose Mountain Provincial Park in May and early June, 1965. I wish to thank Dr. G. G. E. Scudder for identifying this specimen for me and Dr. R. W. Nero for critically reading the manuscript.

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POTAMOGETON ILLINOENSIS, NEW TO MACKENZIE DISTRICT[1]

by **W. J. Cody,** Plant Research Institute, Central Experimental Farm, Ottawa, Canada and **A. E. Porsild,** National Herbarium, National Museum of Canada, Ottawa, Canada

There are some groups of plants which are poorly represented in our herbaria. This may be because they belong to 'difficult' genera, because they often occur in areas which are not readily accessible or because they do not make good specimens when collected. One group of plants which fits all three of these criteria is the genus *Potamogeton*, the pondweeds.

Several years ago, a *Potamogeton* was sent by H. R. Webster, Canadian Wildlife Service, to the Canada Department of Agriculture, for identification. It had been collected in connection with waterfowl studies being carried out along the Mackenzie River west of Great Slave Lake in southern Mackenzie District. Data is as follows: MACKENZIE DISTRICT, confluence of Horn and Mackenzie Rivers, Mills Lake; submergent with floating leaves; this species with *P. vaginatus* most common and abundant of submergents in all slack water and also encroaching onto main channels of rivers, *H. R. Webster 5*, 11 Sept. 1957 (DAO). The specimen was at first identified as *P. gramineus*, to which it was certainly closely related. During a review of the genus in Mackenzie District, this specimen was sorted out as being incorrectly placed, but it could not be matched with specimens of any other species which occurred in Mackenzie District or in adjacent Alberta and Saskatchewan. Consequently, it was sent to Dr. E. C. Ogden, New York State Museum, for his opinion. He determined the plant as *Potamogeton illinoensis* Morong.

A map of the distribution of *P. illinoensis* was given by Dr. Ogden (1943) in his monograph of the broad-leaved species of *Potamogeton*. In Canada he showed it as occurring on the Gatineau River in Quebec, in southern Ontario, and as single collections from southern Manitoba and southern British Columbia. The Manitoba collection was made by J. M. Macoun in 1883 along the Souris River about 20 miles southwest of Brandon. The British Columbia specimen was also collected by J. M. Macoun. He gathered it in 1901 at Sumas Lake in the lower Fraser River drainage, where it occurred in slow-flowing water.

This new station for *P. illinoensis* in southern Mackenzie District is a major extension of the known range of the species, being some 1100 miles northwest of Souris River, Manitoba and 800 miles northeast of Sumas Lake, British Columbia.

Moss (1959) included *P. illinoensis* in Flora of Alberta, but stated "no Alta. plants seen, but expected". It is not included in the catalogues of the flora of Saskatchewan by either Breitung (1957) or Fraser and Russell (1954). Scoggan (1957) in Flora of Manitoba included it on the basis of Ogden's report and a specimen collected by B. J. March from Bissett (DAO) which has since been revised to *P. amplifolius*. He gave the general distribution "southern British Columbia to southern Manitoba . . .". The presence of this plant in southern Mackenzie District would indicate that it should be searched for in suitable habitats in the western Canadian provinces.

A detailed description of *Potamogeton illinoensis* can be found in Ogden (1943) or Fernald (1950). It may be distinguished from closely related species by its usually simple stem; floating leaves with stout petioles mostly shorter than the blades, the

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[1] Contribution No. 594 from the Plant Research Institute, Canada Department of Agriculture, Ottawa.

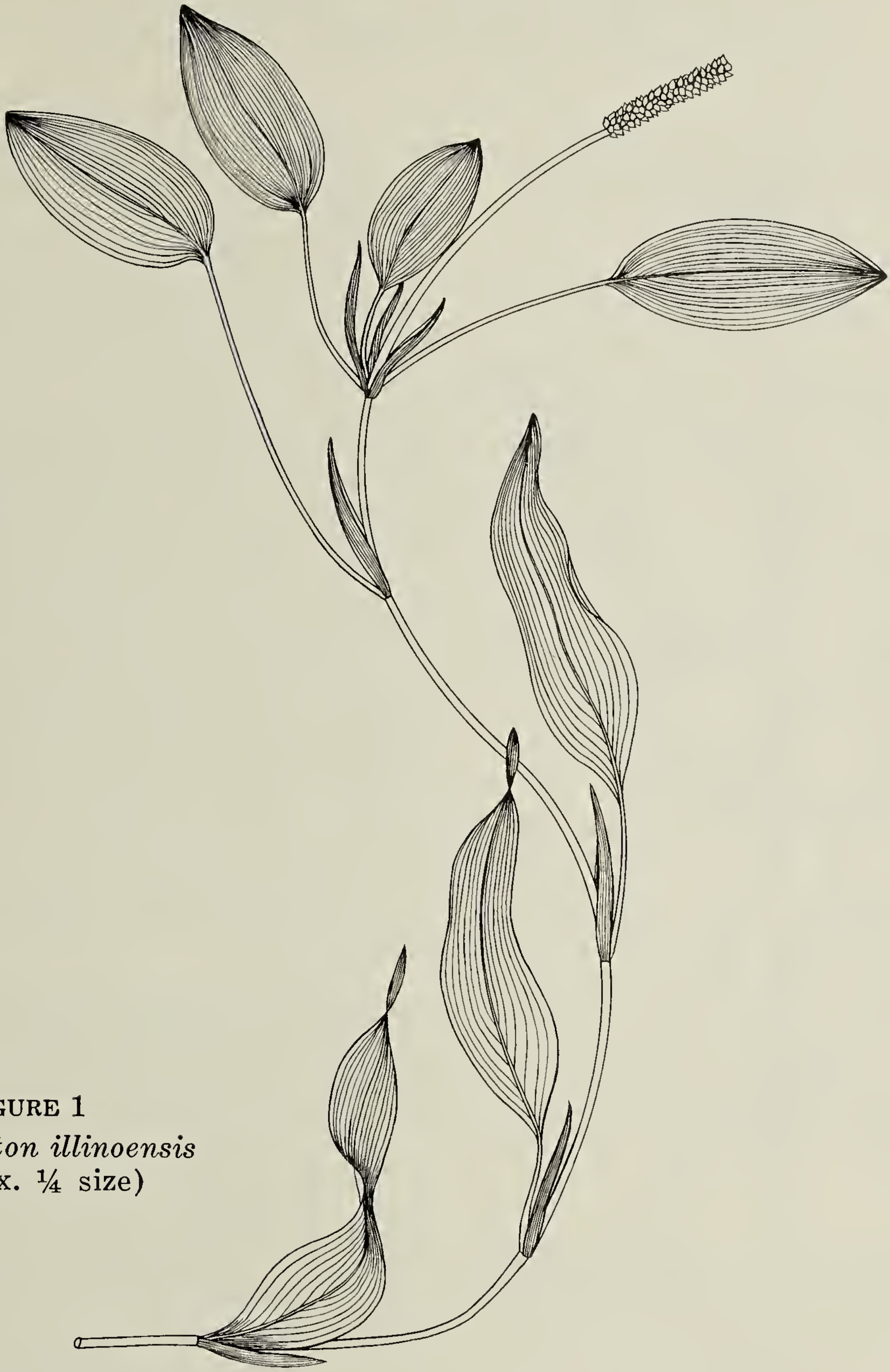

FIGURE 1
otamogeton illinoensis
(approx. ¼ size)

lades 4-19 cm long and 2-6.5 cm ide; submersed leaves with 9-17 erves, three to five times as long as road, sessile or petiolate; and the 1-8 m long prominently keeled stipules.

A habit drawing of *P. illinoensis* is iven in Figure 1.

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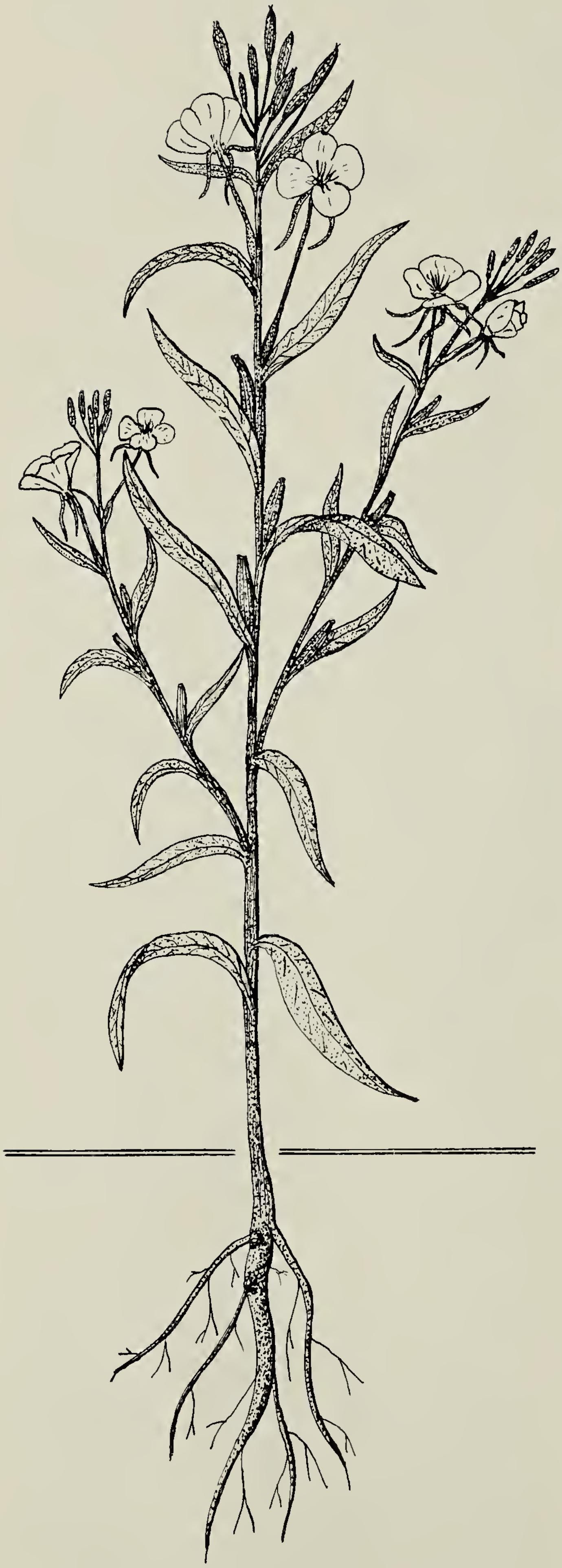
A NOCTURNAL BLOOMER

by **Keith F. Best,** Research Station, Swift Current



Western yellow evening-primrose
Drawing by K. F. Best

The western yellow evening-primrose *(Oenothera biennis* var. *canescens)* is a native biennial. During the first year this plant forms a large flat mat or rosette of leaves and a fleshy tap root. In the second year of its growth, an erect leafy stem is produced often up to five feet in height.

Generally flowering in early July, the large yellow flowers are lemon-scented with eight prominent and spreading stamens, the golden pollen loosely connected by cobwebby threads. A most drab and faded appearing plant during the daylight hours, it undergoes an amazing change as twilight approaches. The buds, in their upright position on the stem, begin to expand, the calyx suddenly bursts open and the four sepals bend sharply downward. One by one, the petals slowly unfold to expose the finished bloom and perfume the evening air. Opening just before sundown, they fade in the strong sunlight of the following day.

The fruit is a cylindrical capsule, somewhat hairy and opening from the top into four many-seeded cells. The seeds are very irregular in shape, dark reddish-brown, granular, ridged and often with winged margins.

A very common plant on lighter soils throughout the southwestern portion of the prairies, it is found in roadsides, pasturelands and waste places.

BACK COPIES OF BLUE JAY WANTED

To make a complete set of back copies of the *Blue Jay* for reference library use in Regina we find that we are short four numbers: Vol. 9, No. 3; Vol. 10, No. 4 and Vol. 15, No. 1 and 2. If you can help us please let us know. Other back copies are needed to complete other sets. Please write to Mrs. Hugh Smith, SNHS, Box 1121, Regina.

Junior Naturalists

Edited by **Joyce Deutscher,** 7200 6th Ave., Regina

FROGS IN DECEMBER

by **Glen Watts,** age 13, Cartwright, Manitoba

I was walking along the ice on Badger Creek one-half mile east of Cartwright, Manitoba, today (Dec. 4, 1966). I noticed some small areas of open water where springs run into the creek. In some of these open areas where the water was only two to four inches deep I saw some frogs and water beetles. The frogs, some of which were green and some brown, were resting on the creek bottom. They seemed quite stiff but would swim away when disturbed. The air temperature was about twenty degrees today but has been as low as fifteen degrees below zero some nights. I was wondering why these frogs weren't in hibernation.

FAMOUS BIRD PAINTERS

by **Delmer Dutka,** age 11, Yellow Creek

This year we received signatures from famous bird painters. We have signatures from Fenwick Lansdowne, Frank Beebe, Angus Shortt, Glen Loates and Barry McKay.

We have received some reproductions of paintings by these men. Mr. McKay sent us an original painting of a killdeer sitting on her nest.

We read about these men in the Canadian section of the Star Weekly.

Delmer's classmate, Audrey Zip, adds how thrilled they were at receiving Mr. McKay's original painting. Mr. McKay wrote them that he started painting in his school days.

Editor's note: We wonder if Juniors are aware that we have a top ranking bird artist, Fred Lahrman, painting in Saskatchewan. Mr. Lahrman works at the Saskatchewan Museum of Natural History in Regina and is responsible for many of the natural habitat background paintings there.

CLASSROOM PHOTOGRAPHY

by **Elsie Nemeth,** age 12, Yellow Creek

One afternoon one of my classmate's father brought an owl to school. We think it was a Saw-whet. My teacher put it on a trunk of a tree that we have in our classroom to take pictures of it. We measured the owl and found that the wing span was nine and a half inches.

Editor's note: Stella Holinaty, one of Elsie's classmates, adds that they plan on sending the picture to an expert to have the bird positively identified.

THE FROG'S NEST

by **Dan Wojcichowsky,** age 13, Yellow Creek

In 1966 we were digging potatoes when all of a sudden I saw a clump of moist soil. It looked unusual so I took a knife and cut the top off. Inside I saw a frog. I took the nest to school. My teacher, Mr. Isinger, was very happy. The nest was about 9 to 12 inches below the surface of the soil.

WAXWING NEST IN SHELTERBELT

by **Kenneth Orenchuk,** age 11, Yellow Creek

One day I was walking in the shelterbelt when I saw a half built Cedar Waxwing nest.

The Cedar Waxwings were making the nest of grass, twigs, and mud. The next day the nest was finished. Three days later I came and saw four eggs in the nest. The eggs were bluish with purple spots. Three weeks later the eggs were hatched.

The babies ate worms and seeds. They stretched their mouths about half an inch wide when they ate.

Leader-Post Photo

Fred W. Lahrman
in Saskatchewan Museum of Natural History, Regina

EXPLORATIONS

by **Iris Simon,** age 10, Yellow Creek

One Sunday my cousin and I went for a hike. We found a mouse nest but we were afraid to touch it because we thought a mouse might be in it. So we went on and found a tree that had been pecked by a woodpecker. Then we went on and found fungus which was growing on the north side of the tree. Later we came back along Rhone Lake. We saw cat-tails. As we looked back we saw a big hawk nest but we do not know if any birds were in it.

INJURED BOHEMIAN WAXWING

by **Ellen Nykybouk,** age 10, Saskatoon

One Thursday we found a Bohemian Waxwing on our walk. This poor bird seemed to have an injured wing. So we brought it into the house and put it in a bird cage. We found out that the bird would eat mountain ash berries and chopped apples. We also heard him sing. He had a pretty song. Day after day we tried his flight but it was no better until one day we set him outside to see if his wing was better. Yes, it was better. Off he flew to join his friends.

SASKATCHEWAN SAND CASTLES AND FOSSIL HUNTING

by **John Bayless,** age 12, Lucky Lake

On a Sunday, just after the snow came, we paid our first visit to the Sand Castles south of Beechy Co-op Farm and had a really wonderful time and hope to spend a weekend there first thing in the spring. We picked up several specimens of fossils and some perfect clam shells among things we do not know. We are now wondering hy we drove all the way to Drumeller to see something like this when e have it almost in our back yard.

A GARTER SNAKE IN THE CLASSROOM

by **Debra Gingara**, age 11, Yellow Creek

One day my classmates, myself, and ur teacher caught a garter snake. Ve brought the snake into the school nd put it into a large glass case. We lled the case with dirt then we gave e snake a frog to eat. When we ame back to school the frog was gone we all thought the snake ate it. ut when we were letting the snake o and when we were cleaning the irt out we were surprised because e frog was underneath the ground the case all the time.

MUSKRAT PLAYS POSSUM

by **Linda Simon**, age 13, Yellow Creek

One day my friends and I were kating on the dugout when we saw muskrat. It pretended to be dead. y brother put his hockey stick near the muskrat. It was so scared that did not move. Then we looked in e hole in the ice and saw two little uskrats. The first muskrat went to the hole which led under the ice.

A week or two ago we were skating hen we saw a muskrat in the willow wigs. We watched the muskrat for a hile. It pretended to be dead. We ent away so we do not know what appened to it.

A SWARM OF BEES

by **Linda Nemeth**, age 11, Yellow Creek

One day I saw a swarm of bees on fence. I ran to the house and told y mother to come. When we got ack the bees were clustered around a ole in the shape of a large cone.

The next day when my father came ome from work he called me to help im. The bees were in the air. They unded like aeroplanes. As I walked ast them one bee stung me on my eck. I ran away very fast. The next day the bees were gone. Later I saw that they had moved into our porch. I ran and told my father. A few days later the bees made a hive and put some honey into it.

NOTES AND COMMENTS

The students from Yellow Creek school again are major contributors to the Junior section. We would like to congratulate them on their interest in nature and the enthusiasm with which they write about their adventures. We would also be pleased to have more teachers sending in collections of letters from their students.

In addition to the letters published we have gleaned the following information from other letters.

Mammals observed in the Yellow Creek area include a coyote seen by Colleen Shewchuk, a squirrel by Rose Nemeth and a mother and two young badgers by Ellen Kuz. Elizabeth Toth thinks there is some connection between a lynx and the disappearance of one of their sheep.

Glen Fleming has no doubt about why some animals disappear. He traps them. The mammals he traps include coyotes, weasles, muskrats and foxes. Glen was most excited however when he saw a lynx.

One mammal which never fails to bring forth a story or two is the skunk. Sherry Chubak claims that her grandfather likes the odor of skunk. However, Gerry Oleksyn states that his dog "did not smell very good" after his encounter with a skunk. Meanwhile Audrey Lesedouich connects the disappearance of some chicken eggs with the presence of a skunk.

Dennis Mathowski didn't see any mammals but he looked for signs of them and found weasel and deer tracks.

John Mukli didn't think a beaver appeared quite proper swimming around in a small puddle so he and his uncle moved the beaver to a slough.

Bird watcher Deborah Shawchuk saw a blackbird in the engine room while Evelyn Gypchuk tried unsuccessfully to nurse a blackbird with a broken wing back to health. A happier story cames from Kenneth Mazur who reports that a pair of bluebirds successfully raised a family in the birdhouse in their back yard. Meanwhile Eugenia Koval was concerned about a family of Mallards which were separated by some dogs. She hopes the mother was able to find the young ones again. A happy ending was reported by Joan Popiel who nursed a chickadee with a missing toe back to health.

Idelle Swicheniuk relates how their class studied about the Sharp-tailed Grouse after their teacher, Mr. Isinger, brought one to school. Bobby Oleksyn claims they knew it was a grouse by the feathers on its legs. Among other things the students learned that the grouse is the bird emblem of Saskatchewan.

And that just about sums up what Juniors have been doing recently except for Tom Nykyforuk of Saskatoon who drew a Bohemian Waxwing. Tom is eight years old and his drawing very clearly showed the crest on the waxwing's head. Keep up the good work Juniors. We enjoy hearing from you.

Letters for the Junior Section of the *Blue Jay* should be mailed to Mrs. Joyce Deutscher, 7200 - 6th Avenue, Regina, to arrive not later than April 15 to be in time for the June issue.

Letters and Notes

GREATER PRAIRIE CHICKEN?

Mr. C. E. Pegg of Claremont, Ontario in the *Oshawa Naturalists' Club Bulletin Supplement*, December, 1966 reported on a trip to western Canada. His family stopped at the Museum of Natural History in Regina which he said "is one of the finest in Canada". They were greeted there by Mrs. E. Cruickshank, who accompanied them to see Burrowing Owls at Richardson.

During the trip Mr. Pegg saw 200 species of birds and some of these are mentioned in the account, e.g., Clay-colored Sparrows, Chestnut-collared Longspurs, Black-billed Magpies and Lark Buntings near Estevan; Brewer's Sparrows, Lark Sparrows and Rufous-sided Towhee near Stewart Valley; Sharp-tailed Grouse and Eastern and Western Kingbirds near Swift Current; Baird's and Savannah Sparrows, Long-billed Curlew and Upland Plover north of Piapot; Red Crossbills, Audubon Warblers, Oregon Juncos, Dusky Flycatchers and Mountain Bluebirds in the Cypress Hills.

On July 14 in the Cypress Hills Provincial Park he records as follows: "In a long grass meadow, I flushed a flock of grouse. There was one adult and eight young grouse about half grown. The tails of these birds were short, dark and rounded as they flew. The adult bird was more barred than speckled. I believe they were Prairie Chicken, now a rare species in the west."

INCREASE IN SHARP-TAILS

A few days ago [letter of January 30, 1967] I saw an encouraging sight. We were pulling on to Highway No. 15 north of our home and we noticed grouse to the northwest of us; then we looked to the northeast and there were many more. Mary and I began to count and we went past 40. These birds were on the crest of two hills beyond us and we believe there were more we couldn't see. I had never seen grouse on these hills before, although we have always seen flocks of a dozen or less along the highway in winter.

I remembered having seen unusual numbers of sharp-tails back in my school days. I looked up my records—

nd found that on February 15 and 6, 1947, 42 grouse were feeding on ubble across the road from home in 30° weather. That was the only ther large congregation I have seen.

While digging in the records of that inter, I came across numerous obser- ations of coyotes, and plentiful flocks f partridge and grouse, sighted early every day. This winter, in the nmediate vicinity of our home, there ave not been any grouse, but a flock f nine gray partridge visit the bale ack occasionally. I haven't sighted coyote so far this winter, but have vo rabbits and two fox.—*Lawrence eckie*, Bladworth.

OBSERVATIONS OF ORIOLES NESTING

In mid-July, 1965, we observed a emale Baltimore Oriole taking a fine read left on the clothesline from a ind-blown sheet. The male had been eard and seen for several days close the house. Eager to help, we tied rands of grey mending wool to the ne. They were promptly accepted. he female bird's dexterity in unty- g single and even double knots was ascinating. A falling yarn was almost lways retrieved before it struck the round. We offered coloured wools of e same size and texture — red, blue, reen, purple, black, brown and range. All were rejected, with no terest being shown in them at all. oarser wool or string was not taken. his was tried each day. Only once, fter several hours when nothing else as offered, were a fine black and a ne dark red yarn accepted. But she uld hardly wait for pastel yarns to placed on the line. Why did she onsistently refuse the brightly- loured yarns?

The nest was in the top of a 15-foot m in the shelter belt and like the othesline visible from my kitchen, so servation was easy. It took almost actly two minutes from the time she ft the line with yarn until she returned for more. If none was there she waited a few moments, then went elsewhere, but a fresh offering would cause her to return in short order. Work went on for a half to three-quarters of an hour, followed by a rest or feeding time of up to two hours.

At no time was the male observed at the clothesline, bringing other material, or helping in the nest building. In fact, he was never seen closer than six feet from the nest. But he did stay near the site, and was alarmed if we ventured too near. After five days the nest appeared complete.

When the young hatched we were interested to note the male was most active in feeding the nestlings. The two birds took distinctly different areas for foraging. The male was observed always flying directly from the nest over all surrounding trees and sloughs to a wooded pasture about one-third of a mile away; he always returned in the same "bee line" to the nest. Meanwhile the female was never seen away from the shelterbelt.

After a week of increasingly noisy chatter from the young birds, we found four young orioles in the tree branches near the nest. The parent birds were now never far away, and seemed apprehensive of danger. Food was brought frequently, and in spite of loud calls each fledgling seemed to get his dinner in turn. Gradually the calling stopped, though we frequently saw the young birds for the next two weeks. They had probably become proficient in securing their own food.

In the summer of 1966 we again put our yarn offerings on the clothesline but they were steadily ignored by orioles, although we knew one pair at least to be nesting near by. Eastern Kingbirds did show interest, but were easily discouraged if yarn was even loosely attached, and if it fell from the line they refused to carry it, even though they would fly down to it.—*Mrs. J. Drinnan*, Grenfell.

MAURICE STREET

I wish to express my sincere thanks to all the kind friends and members of the Saskatchewan Natural History Society who sent their kind words of sympathy in the sudden passing of my brother Maurice, October 27, 1966. And special thanks to Dr. and Mrs. Stuart Houston, who drove 400 miles to attend the services, and also to Dr. and Mrs. Stan Riome, who so kindly invited all who attended the service to their home.—*Stan J. Street,* 3724 Happy Valley Rd., Victoria, B.C.

The above photo, taken at Maurice's grave, shows the little white spruce and the Chipping Sparrow nest as mentioned in Dr. C. S. Houston's tribute to Maurice G. Street in the December, 1966, *Blue Jay.*

HUGE BALD EAGLE

One always regrets to hear of a Bald Eagle being killed but sometimes a predator has to be eliminated. Clare Burt in *Canadian Farm Digest* (July-August, 1966) describes a Bald Eagle killed north of Toronto about 80 years ago because it was stealing lambs. This eagle, now on display in a pet store at Oak Ridges, is 34 inches long from top of head to tip of tail, it is 13½ inches across the back and it had a wing spread of nearly 13 feet. It is good to know that this exceptionally large eagle has been preserved. Here in Saskatchewan we think we have a large eagle if it has a wing span of seven feet.—*Dave Santy,* Beechy.

WHERE DO OUR EASTERN BLUEBIRDS COME FROM?

Margaret Belcher mentions in her article in the last *Blue Jay* that there is doubt as to just HOW the Eastern Bluebirds find their way into Saskatchewan. If you read the Junior Section of the *Blue Jay* you will remember that our Juniors' annual report has mentioned several times that our nest lines cannot get the Eastern species any further west than Virden, 47 miles west of Brandon. Also, none of us has seen any of the Eastern any further west than that town, despite the fact that I make several hundred runs west and east to Broadview, each year, and even have the section men on the watch for "red-breasted" bluebirds for me.

In discussing this with the Juniors, we have about decided that the Easterns must fan out across the west country as they approach the northern states, and *then* proceed more or less north into Saskatchewan and Alberta. This might account for the fact that we never see bands of Easterns coming north in the spring — those that do use our nests just seem to appear from nowhere — whereas the Mountains definitely do work their way north and west through Manitoba. One of my fellow train men, motoring down from Saskatoon to Brandon last spring to resume his work here, tells me that all through the trip down, he met small bands of Mountain Bluebirds, all of which seemed to be heading northwest. He thought he might have seen around 200 during his trip. — *Jack Lane,* Brandon.

BELLIGERENT GOPHER

The following almost unbelievable ccurrence took place one sunny afteron this past September, on a farm 2 miles south of Moose Jaw.

Mr. David Swayn, while cultivating field, covered over the opening of a opher hole, leaving the frantic opher (Richardson's Ground Squirel) on the outside. Immediately a rge buteo hawk (unidentified), wooped down and caught his prey; struggle ensued, the big bird quawked as if in pain and let the opher drop, then flew away. At once nother hawk came in for the kill, and he same strange performance was epeated, with the gopher coming out ictorious.

Mr. Swayn got off his tractor and valked over to the gopher, thinking hat it would be in bad shape and he vould have to end its misery. The nimal saw him coming and rose up n its hind legs, squealing at him in very belligerent manner. Seeing no isible wounds, and deciding that this articular gopher was well able to ake care of himself, the man pruently withdrew. — *Joanne Brodie,* Moose Jaw.

"WHISTLING" RABBITS

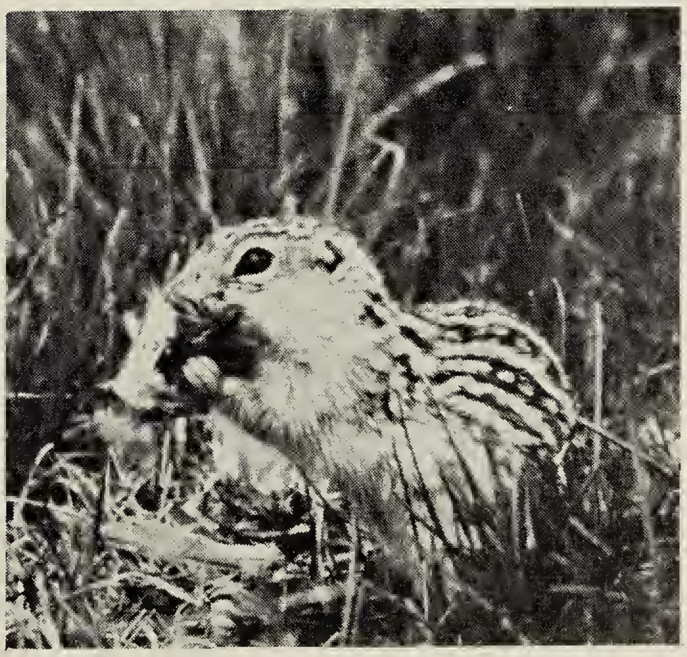
Mammal watchers who have followed the discussion about an apparnt whistling vocalization by the nowshoe rabbit (*Blue Jay,* September 1963, p. 105 and March 1964, . 36) will be interested in a report n the August 1966 *Journal of Mammalogy.* Donald L. Forcum notes that while observing mating behaviour of ome captive snowshoe rabbits he eard a male utter a "chirp or birdlike warble that is difficult to describe." Whether or not this in analogous to whistling" is uncertain, but it does ndicate that snowshoe rabbits can mit unusual sounds. — *Robert W. Vero,* Manitoba Museum of Man and Nature, Winnipeg.

NORTHERN FLYING SQUIRREL

At various times I have noted articles in the *Blue Jay* on the subject of Flying Squirrels. Bud White of Margaret, Manitoba, a fellow member of our Brandon society, enquired about other sightings in his letter to the *Blue Jay,* March 1964.

On November 12, 1966, Mamie McCowan and I drove to the Brandon Hills (1575 feet altitude), ten miles south of Brandon. Deer tracks were numerous, also rabbit and mice tracks. There were Black-capped Chickadees about and a Blue Jay. In an oak tree, numerous thereabouts, there was an old bird's nest roofed over completely with grass in an elongated cylindrical form. I gave the tree a bunt and out came a flying squirrel. It scurried up the tree about six feet and stayed there as long as we watched. It had big eyes, small ears set back on the head, broad flat tail, grayish fur, fur-covered membrane between front and hind legs. We had a good look at it from all angles and thought that it looked sleepy and cold.—*Mrs. Barbara Robinson,* 1441 - 8th St., Brandon.

RODENTS FEEDING ON BIRDS



There have been several notes in the *Blue Jay* about mammals feeding on birds. The accompanying picture shows a Thirteen-lined Ground Squirrel eating a Clay-colored Sparrow.—*E. N. Dandridge,* Birtle, Manitoba.

A NEW MENACE TO WILDLIFE

The latest invention which is being used with deadly effect against coyotes, foxes, bobcats, as well as (in the north at least) deer and moose is a contraption locally known as a "skidoo". It is a small and easily manoeuvrable type of bombardier, or gasoline-powered toboggan, equipped with tracks, which can go anywhere over snow or ice and attain a speed which is capable of following an animal close enough to play it out, and eventually kill it by simply bashing into it, and breaking its back.

I am told that if the first blow does not kill the animal, the second surely will. I am also told that a coyote will usually make a burst of speed toward a bluff, and from this it must be dislodged, but after it has done this a time or two it will not budge and can easily be approached on foot and shot with a .22 rifle.

The "skidoo" has many advantages over the old method of hunting with a team and one-bob sleigh, inasmuch as the hunter could not follow his hounds closely, and was often held up by fences, causing considerable loss of time, as the driver had either to let down the wire or cut it with pliers, to the annoyance of his neighbours. The skidoos, however, can be put out of gear and manhandled quite easily *under* the fence, and the chase resumed.

Foxes, they tell me, are harder to get, because they are less apt to run straight and will jinx back and forth so rapiidly that they can avoid the skidoo and often go to earth. Apparently several hunters are more successful in this chase of foxes as I have been told that on the open plains three or four will work together, surrounding Reynard and eventually killing him.

There are masses of mice about, and you only have to see the riddled grass, the thousands of tunnels, and the ragged floors of the bluffs (after the snow goes) to realize just how many. So it behooves us to stop the indiscriminate slaughter of their enemies — hawks, owls, weasels, bobcats, coyotes and (in the north) that peer of mousers, the timber wolf.

Some hunters skin their kills to make a few dollars, but many do not. They are town and city people out for thrills at the expense of our wildlife and wouldn't take the price of a pelt for the unpleasant job of flaying and stretching it. One wonders if the supply of animals will last long enough, in any case, to pay for a skidoo, for we hear this model advertised at about $1300!

It is to be hoped that after enough breakdowns, the craze will die out. If not, and at the rate the Eskimos are getting skidoos, the effect of this kind of hunting on caribou and wolves in the Arctic will rival that of the repeating rifle. In fact, half a dozen determined poachers with these vehicles could probably kill off all that are left of our musk-ox in a single winter.

While governments usually hesitate about passing repressive legislation, they might well consider some law to regulate this unsporting type of hunting. Even farmers, who want to protect their poultry, are for the most part indignant about the skidoos. They are the ones who suffer from the depredations of mice, and anyway they don't care to have all sorts of people rushing around their fields. We need legislation against this destruction, and strict enforcement of the law.—*R. D. Symons*, Silton.

SASKATCHEWAN ARCHAEOLOGICAL SOCIETY MEETING

The Saskatchewan Archaeological Society Annual Meeting will be held in the Museum of Natural History Auditorium, Regina, commencing Friday evening, April 21, through April 22, and closing with a proposed field trip to Last Mountain House on Sunday, April 23, 1967. For further information, contact W. H. Long, Secretary-Treasurer, 857 Elphinstone Street, Regina.

The Blue Jay Bookshelf

**HE BIRDS OF CANADA. By W.
arl Godfrey. 1966. National Museum
Canada Bulletin No. 203, Biological
eries No. 73. Queen's Printer, Ot-
wa. 428 pp., 69 color plates (by
hn A. Crosby), 71 line drawings (by
tewart D. MacDonald). 2 maps.
2.50.**

This book begins with a colorful
rctic Tern poised against a deep,
ue sky. This photograph, which ap-
ars on the dust jacket only, was
ken by Richard W. Fyfe. The book
vers are an undecorated, sedate
ack, an effective contrast for the
esh, brightly colored plates which
e a major feature of the book. In-
ed, with 69 color plates of large
ze (8½" x 11"), plus the high quality
reproduction, the low price of the
ok is surprising. Most readers will
rn first to the bird pictures, as I did,
measure the success of this latest
fort to capture the spirit and form
these active animals. Mr. Crosby
cceeds well, in my opinion, with
ost of the 431 species which he has
inted for this book. Adequate de-
ils of plumage are combined with
admirable sense of proportion and
aracter, and are rendered with the
btle and effective techniques of the
rceptive artist. Some are less con-
ncing than others; I found the male
altimore Oriole a trifle awkward,
d the Common Grackle, for some
ason of form or posture, unsatis-
ctory. Bird watchers will find it
sy to identify birds from these new
ustrations, for they are large and
ear, the smaller birds having been
ne in larger dimensions than, for
ample, the ducks.

Although the color plates are in-
rted throughout the text where they
e relatively close to the appropriate
ecies accounts, it would have been
lpful to have had page numbers
ven in the species accounts and on
e plates for quick cross-reference. As it is, one has to turn to the nearest plate, check the plate number, and then turn to one or more additional plates to locate the subject. The Green-winged Teal account, for example, is on page 59, while the color plate with this species is four plates ahead, opposite page 77. (Impatient owners of the book will probably remedy this by adding the page numbers.) Neither species nor illustrations are listed by page number in the table of contents. A quick reference *is* provided, however, by the *index*. The alphabetical listing of common names in the index includes a page number for the species account and for the legend of the plate on which the species appears (the legend for each plate is on the facing page). Hence the index of this book will receive more use than is perhaps customary. Incidentally, a second index of French common names is provided, though without the plate legend page numbers. The French version of the common name also appears at the beginning of each species account.

A second feature of this book, possibly the most useful of all, is the provision of 380 range maps. Breeding distribution is shown by a red overlay on a simple and clear outline map of Canada (about three inches square). Territorial and provincial boundaries are shown, so that a quick glance at a map reveals the area in which a species may be expected to occur in the appropriate season. These maps appear to be as accurate as the available information permits, and they are far superior to anything previously available. Ornithologists with an interest in Canadian bird distribution will find these maps enlightening and in some cases surprising, for many of these ranges differ considerably from ranges shown in previous publications. These detailed maps, plus the accompanying information, will undoubtedly be a source of incentive for more field work and for *publication* of more records by workers throughout Canada. This is the basic information that many have long been awaiting. It must have taken a vast amount of work to search the literature and to sort through various records in order to delineate ranges for so many species over so large an area. One can imagine, too, the difficulties in assessing and relating records of 50 years past with more recent observations, for ranges of birds are not necessarily permanent. Additional information in this respect is provided in the text; for example, for the Dickcissel "breeding is sporadic", the Red Crossbill is "highly nomadic", and the breeding range of the Lark Bunting has a tendency to "expand temporarily during periods of dry summers."

In using the range maps one needs to bear in mind that the range as shown is limited to Canada. The unwary may overlook the fact that the range for many species extends south of the border. In several instances the distribution pattern in the United States helps to explain the Canadian occurrence. It would thus have been an advantage to have an indication of a limited portion of the U.S. range, say for the northern tier of States. Doubtless this would have meant a great amount of additional work on top of a project already of large magnitude. Although subspecies (or geographic races) are given and their range is discussed, some indication on the range maps of their approximate distribution would have been useful.

Two detailed maps of Canada are available for reference and study inside the front and back covers. One which shows the major vegetative regions, from grassland through forests to tundra, can be put to good use by comparing it with the individual range maps. Many correlations between bird distribution and these general vegetative zones will become apparent. The other map includes major lakes and rivers, railways, and place names, with special emphasis being given to localities frequently mentioned in the text. Unfortunately, one of these, Hasbala Lake, in extreme northeastern Saskatchewan, is shown about 50 miles southwest of where it should be.

There is no doubt that this book will be of considerable use to beginning as well as to advanced birders, for at least half of the textual material is concerned with species identification, habitat, and nesting information. For many species, description of plumages is more complete than I have yet seen in a book of this kind. This is especially useful for some of the raptorial birds. Although too bulky to be carried in the field, this book should be in the library of everyone professing to have an interest in birds in Canada and adjacent regions. Frequent use and study of the information in this book should enable all of us to become more proficient in field identification of birds.

The constant ornithological service provided by Earl Godfrey over many years has earned him the respect and admiration of numerous ornithologists and birders across Canada and elsewhere. *The Birds of Canada* is a splendid evidence of his dedication to ornithology. The National Museum of Canada, the artists, and the author deserve congratulations for this publication. The spirit of service to a broad group of readers embodied by P. A. Taverner in the several preceding "Birds of Canada" has effectively been carried forward by this latest Museum bulletin. This book will provide a further impetus to ornithology in Canada and will stimulate young and old to participate in the study, enjoyment and conservation of birds. In the words of the author: "Birds add immeasurably to the enjoyment of everyday life and contribute to a sense of well-being. Although one cannot put a price tag on the sight of the first spring Robin, the plunge of an Osprey, or the vesper carillon of a Hermit Thrush, these and countless other aesthetic aspects of our birds are as real as the economic ones and fully as great."—*Robert W. Nero.*—Manitoba Museum of Man and Nature, Winnipeg.

BIRDS OF ALBERTA, REVISED

HE BIRDS OF ALBERTA. By W. ay Salt and A. L. Wilk. Revised lition, 1966. The Queen's Printer, dmonton. 511 pp., 315 color photoraphs, color drawings and sketches, maps. $5.00.

The second edition of *The Birds of lberta* is even more attractive than ie first, and the book is certain to ılfill the stated objective of being an aid primarily to those who are ot too well acquainted with the birds Alberta and who would like to now them better." Eight years have apsed since the publication of the rst edition. In a substantial review the March, 1959 issue of the *Blue ay* (Vol. 17:43-44), Dr. C. Stuart ouston wrote that this was "a major vent for all prairie naturalists." It ill is, I believe, for there is as yet comparable publication for Saskatewan or Manitoba (or Montana or orth Dakota). Dr. Houston's review the first edition is still worth readg, for much of what he said then, avorable and unfavorable, applies to e second edition as well.

Although the second edition (resed by Salt) should undoubtedly purchased by new Alberta birders, e hesitates to recommend it to those ho already have the first edition, for is not much different. What makes e present version more attractive is e many color photographs which ave been added. Some of these relace color photos which appeared in e first edition, but there are about more color photos in this edition. y my count, there are 162 color hotographs, 117 painted illustrations "color drawings" (almost unanged from the first edition), and line drawings (as compared to 85 the first edition). A color photoraph is a convincing portrait of a ecies, almost regardless of how disrranged or obscure the plumage may ppear. Much of the pleasure of lookg at a good photograph results from e marvelous sense of life which it nveys. The mystical quality of light and shadow that clothes a bird in its outdoor environment gives an impression of the wholeness of a bird, and wings, tail, flank feathers are no longer separate units as in so many drawings. Professor Salt has selected some beautiful photographs, and he and the photographers are to be commended for making these available. I think that these photos will be influential in arousing interest in the birds of Alberta. For this reason alone the book should be in every school library in the province.

The extent to which these color photos will help new birders learn to identify birds is questionable. In many cases details of plumage, outline of body form, and even color are so obscured by shadows or concealed by posture as to make the identification of the bird difficult, and so it is hard to see how these photographs would help a beginner. Photos of the Black-crowned Night Heron, Oldsquaw, Broad-winged Hawk, Gray Partridge, Dunlin, Stilt Sandpiper, Western Wood Pewee, Cliff Swallow and Tree Sparrow, for example, will mean little to persons not familiar with these species. Some of the color photos which show birds in unusual poses or siuations will be equally puzzling: the spectacular display posture of the Buff-breasted Sandpiper is worth seeing, but this portrait will not be of much use to someone trying to identify the bird; the Common Grackle at its nest in a cattail marsh will puzzle many; the Saw-whet Owl peering out of a nest cavity, and the Sanderling on its nest (badly offcolor compared to the first edition) will not be easily identified. Some of the color photos are less useful because distinctive features, such as long legs or bill, are concealed or cropped, e.g., the Marbled Godwit and Stilt Sandpiper. A number of photos were apparently out of focus and present rather indistinct images; the Ruddy Turnstone, Long-billed Curlew, Wilson's Phalarope and Glaucous Gull are examples. A few plates in my copy are printed out of register—the Surf Scoter, Semipalmated Plover, Piping Plover, Stilt Sandpiper, Mew Gull, and Franklin's Gull are particularly faulty. A few of the fuzzy color photos are useful in one way, for they emphasize the characteristic pattern by which the species may be identified even at a great distance: in this respect see the Shoveler, Surf Scoter and Ruddy Turnstone.

On the whole, while the color photos are often exciting, they do not all present a good impression of the character or spirit of the species. This is a job for the artist, and nearly all of the color paintings and line drawings in the book are better in this respect. In addition, the latter often include a suggestion of habitat as well as emphasizing characteristic features by which the species may be identified. All art work is interpretive and distorts or abstracts life—but this is a necessary and useful aspect of bird art. I believe that there still remains a great challenge for artists (yes, and photographers, too) to help us to understand nature through their works. *The Birds of Alberta* will not replace existing bird books as a guide to field identification of birds.

The first major aim of the book was to "assist the observer to identify any birds which he might see in Alberta"; the second aim was "to help him find in the province those species which he wishes to observe." With this in mind, many of the range maps have been revised in the light of new information, much of it undoubtedly submitted as a consequence of the appearance of the maps in the first edition. Though rather general and probably based at times on very few substantiating records, these maps have presented a case for argument, as it were, and one presumes that the new maps will provide an additional incentive for study. They are certainly a great help in learning what to expect to find in different parts of the province. The remarks on distribution in the text have also been revised where necessary. Documentation of records is again, as in the first edition, sacrificed for more general information. Hence, the basis for the range picture and status is not usually given. In this respect, more than in any other, the book will be disappointing to those who are interested in these details. Observers can correspond with Professor Salt regarding particular records or problems, but it would have greatly increased the value of the book to working ornithologists if citations for critical matters had been added to the text, or if at least a bibliography of Alberta ornithology had been included. I don't think enough is said in the book regarding the need for further records of the occurrence of species within the areas of known or presumed range. The heavy black range map looks solid and reassuring, but we know in many cases that this is based on a good guess, and guesses for the distribution of species in remote areas have often proved to be in error. The person for whom this book is primarily intended, "the layman rather than . . . the scientist", may be misled into thinking that the range picture is as definite as is indicated.

The check-list of the birds of Alberta in the revised edition includes the following additions: Cattle Egret (specimen, 1964), Black-crowned Night Heron (recorded in the Introduction of the first edition), Brant (specimen, 1957?), Black Brant (hypothetical in first ed.; specimen, 1960?), European Widgeon (hypothetical in first ed.; specimen, 1959), Turkey (from 16 introduced in 1962, there were in 1965 "at least two hundred [sic] spread throughout the Cypress Hills in Alberta and Saskatchewan"), European Common Crane (photographed, 1957, 1958), Parula Warbler (recorded in Introduction, first ed.), Scarlet Tanager (hypothetical, first ed.; specimen, 1964). One species, the Blue-gray Gnatcatcher, has been added to the hypothetical list without any comment. I was sorry to see that there was no mention of the Garganey, a duck reported seen in Alberta in 1961 (*Blue Jay,* ol. 21:4-5); although possibly an scape, it seems worth recording. Ac- unts of the Parula Warbler and carlet Tanager are unaccountably no pun intended) inserted between hestnut-collared Longspur and Snow unting; that of the European Com- on Crane, after the hypothetical list. resumably this was done in order to ve rearrangement of the species ccounts. Still, it would have been orthwhile to have had a full page ith map for these interesting species. full page account for the King ider (one record, 1894) has been rried over from the first edition.

Considering the emphasis given to e use of this book by the layman d beginning birder, a surprising mount of information regarding sub- ecies or geographic races is given the check-list. In addition to scien- fic names for all Alberta subspecies, mmon names are given, the use of e latter being a practice which has en dropped by most workers, fol- wing recommendations by the merican Ornithologists' Union. Al- rtans can look for the "Eastern ighthawk", "Sennet's Nighthawk", d the "Pacific Nighthawk" as well the Common Nighthawk, but all ur bear the name Common Night- awk in the A.O.U. list. One notes o, a "Northern Downy Woodpecker", "Nelson's Downy Woodpecker", and "Batchelder's Downy Woodpecker", ain all simply subspecies of the owny Woodpecker. Fortunately, the lack-backed Three-toed Woodpecker s no known subspecies!

The species accounts are pleasing to ad and include some interesting formation. A good amount of space allotted to pertinent reminders of nservation needs, wildlife manage- ent practices, and natural history. like particularly the following para- aph which is an addition to the ecies account for the Sharp-shinned awk, and an indication of Profes- r Salt's continuing efforts to bring rds to the attention of the people of lberta: "Bird lovers often find it fficult to reconcile themselves to the ct that predators are an essential part of any faunal environment. A full appreciation of this fact brings recognition that the sharp-shinned hawk is a thing of beauty admirably fitted to its role in nature. Piercing eyes to follow every movement, short wings for pursuit among the branches, long legs and claws to reach out and grasp and kill, all combine to form an efficient woodland hunter. The hunt is neither wanton nor sporting; it is deadly serious. Upon its success depends the existence of the individual and, indeed, of the species."—*Robert W. Nero*, Manitoba Museum of Man and Nature, Winnipeg.

Photo by Richard W. Fyfe

Tree Swallow

THE FATAL IMPACT. By Alan Moorhead. 1966. Hamish Hamilton, London. 230 pp. Illus. 30s.

In the mid-eighteenth century Europe was exhausted by wars, and in the weariness that developed, the first descriptions of life in the previously unknown Pacific seemed to offer relief from the disillusionment of life in civilized Europe. The first stories from Tahiti made it appear to be a paradise on earth, where man lived in complete harmony with nature. From this background, Captain Cook sailed on several voyages of exploration to the Pacific, including in his party A. Brown, one of the most eminent natural historians of the time.

Mr. Moorhead has taken three places where Cook called — Tahiti with its large native population and established customs, Australia with its comparatively primitive society, and the Antarctic where there were no human occupants. In each of these markedly different areas he has described how European incursion has largely destroyed the status quo.

There had been several ships in Tahiti before Cook arrived, and it was from these voyages that the paradise-upon-earth stories originated. Cook and his party spent a longer time there, and, whilst finding much to enjoy and admire in the islands, they also began to discover that there were a number of drawbacks to the supposedly perfect life. Savage tribal wars, human sacrifices, infanticide to control the population, a rigid class system, widespread thieving, were all factors which brought into question how much of a paradise Tahiti was. The effect of the arrival of sailors, and particularly of the whaling ships which followed, was disastrous for the native population as the natives forsook many of their handicrafts and customs and were decimated by diseases which were introduced.

Australia was not known to be an island when Cook landed his party in the vicinity of Botany Bay. The aborigines were so primitive that they seemed unable to comprehend anything as large as a sailing ship, and thought the sailors were dead spirits returning, owing to their pale skin. The book includes descriptions of some of the first sightings of kangaroos and other marsupials. Mr. Moorhead then traces the destruction of the pure aborigines and much of the fauna of Australia in the following century to the publication of Daisy Bates' research into the culture of the last pure aborigines.

The Antarctic was difficult to approach but was found to be an enormous reservoir of wildlife, with great schools of whales, as well as an abundance of seals, fish and birds. In the following century, the whaling industry developed, which largely destroyed itself by the wholesale slaughter of the animals for which it existed. The extent of the whaling industry and its effect on the wildlife and islands are interesting aspects of this story.

Mr. Moorhead is well known for the high literary standard and interest of his books and *The fatal impact* is no exception. The description of natural history in the Pacific by the natural historians who accompanied the expedition is interesting both generally and historically. The destruction of so much of the original flora and fauna is a powerful argument for conservation and makes this a very interesting book.—*Tom White,* Regina.

THE WILD MAMMALS OF MISSOURI. By C. W. Schwartz and E. R. Schwartz, 1959. Univ. of Missouri Press and Missouri Conservation Comm. 341 pp., illus. $6.45 (Can.)

The main body of the text is devoted to accounts of the 62 species of mammals known to occur in Missouri (33 of which also occur in Saskatchewan). Each species account is divided into sections dealing with its name, description, distribution and abundance, habitat and home, habits, foods, reproduction, importance, and management and control. The outstanding feature of the book is the beautiful illustrations, which number almost 400. The most valuable are the full page (8″ x 11″) plates that accompany each species account. In addition sketches of tracks, nests, young, ecological factors, and of the animals in various postures bring the subject matter alive. The book merits wide reading among naturalists and is a beautiful as well as authoritative addition to any library.—*W. Harvey Beck,* University of Saskatchewan, Regina Campus, Regina.

A Guide to Saskatchewan Mammals by W. H. Beck, available Box 1121, Regina. 50c.

ENDANGERED WHOOPING CRANE

IE WHOOPING CRANE. By Faith cNulty. 1966. Clarke, Irwin and Co., ronto and Vancouver. 190 pp. $5.95.

People in Saskatchewan are espec- lly interested in Whooping Cranes nce these great white birds move rough the province on their migra- n from the Canadian North to their ntering grounds in the Aransas fuge in Texas. I myself have seen ese cranes in Saskatchewan on four parate occasions: once in the spring 1956 at Pasqua near Moose Jaw; ce in mid-summer when a single bird s observed on a sand bar at the rth end of Last Mountain Lake; ce in late October (1965) in the ubble fields north of Moose Jaw; and ost recently on August 30, 1966, en two cranes spent several days sting and feeding in fields near thune.

Publicity about the Whooping anes and a vigorous campaign for eir protection carried on by the Sas- tchewan Museum of Natural His- ry have made people on the prairies creasingly conscious of these birds d their fight for survival. To a de- ee, of course, this concern is shared the whole North American conti- nt, for the cranes' story has been uch publicized in both Canada and e United States; and the Whooping ane has become, to use Faith Mc- ulty's words, "a symbol both of this untry's new-found conscience in aling with wildlife and of its oppor- nity to atone for its destructiveness the past."

Because of her own interest in the nall remnant population of Whoop- g Cranes and her sensitiveness to e public's concern about them, Faith cNulty has put together their his- ry, following their story up to vember, 1965. Chief among the merous sources used by Mrs. Mc- lty are the books and papers of bert P. Allen who devoted himself whole-heartedly to finding out all could about the cranes in order to lp save them from extinction, until died suddenly in 1963. Unfortunately the title of Mrs. McNulty's book is the same as that of Allen's monograph published by the National Audubon Society in 1952. A substantial portion of the contents of *The Whooping Crane* appeared originally in the *New Yorker* in somewhat different form, and some *Blue Jay* readers may have read this account in the August 6, 1966 number of the magazine.

Mrs. McNulty's first meeting with a Whooping Crane took place at the Smithsonian Institution where she saw a mounted specimen in a display case of extinct or nearly extinct birds. This introduction to the precarious position of the cranes sparked her interest in the species and her later impulse "to document the crucial and possibly final years on earth of a small band of white birds."

Although Mrs. McNulty herself uses the word "document", and did indeed seek out all the accounts in the literature of the history of this bird, her book is not intended as a research report. Stewart Udall, Secretary of the Interior for the U.S. Government, introduces us to her book as "the story of a love affair — between a civilized sophisticated Nation and an enormous, elusive bird." It is primarily as a narrative that the book is written. As most of us know who have followed the chequered career of the Whooping Crane in recent years, the story is one of adventure and suspense, and sometimes of bad luck and frustration.

The story of the cranes as Mrs. McNulty tells it goes back many thousands of years to the time when they "ranged a continent as yet untroubled by the advent of human beings." Within historical times, contrary to general opinion, Whooping Cranes seem never to have been very abundant, and it is typical of their bad luck that the myth of their abundance should have taken so long to die. Robert Allen's reconstruction of their history indicates that there were possibly 80 or 100 Whooping Cranes in

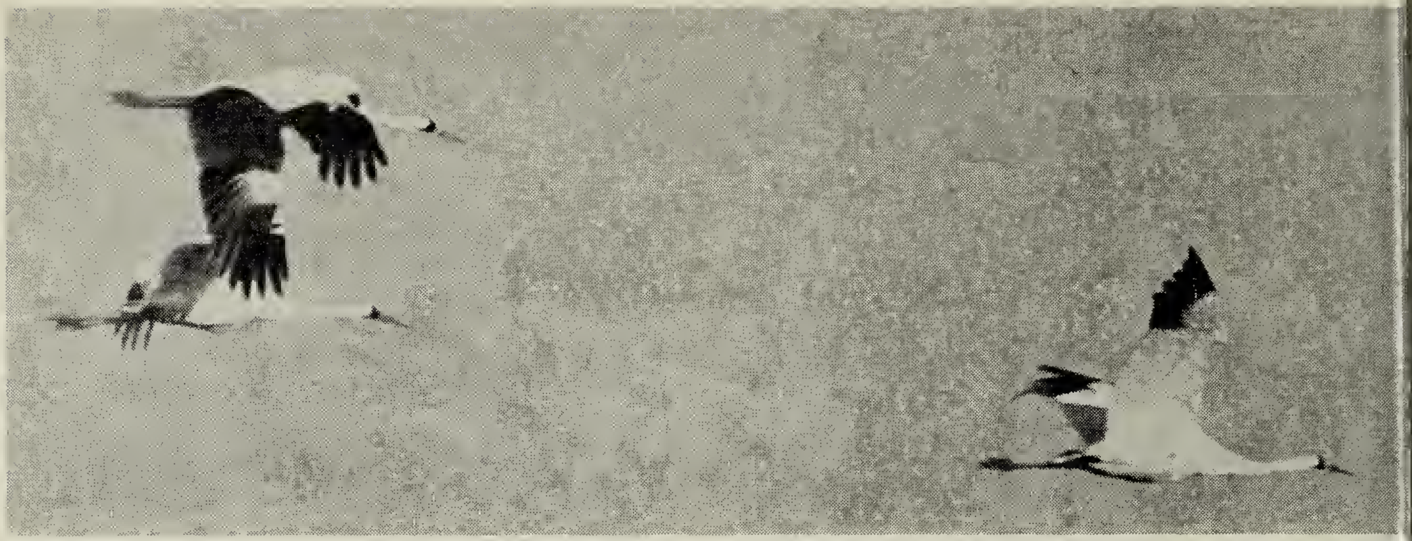


Photo by Fred W. Lahrman

1912, and yet reports of large numbers clouded the truth during the critical decades from 1912 to 1934. The first move to save the Whooping Crane was therefore not made until 1937 when the United States Biological Survey, forerunner of the Fish and Wildlife Service, bought the 74-square-mile Blackjack Peninsula on the Gulf coast that later became the Aransas National Wildlife Refuge.

The establishment of the refuge did not protect the wintering grounds of the cranes from the arrival of Army engineers to dredge a Waterway channel along the edge of their precious salt marshes, nor from the drilling of oil companies, nor from the use of Matagorda Island as a bombing and machine gun range by the Army Air Corps (an activity stepped up during the war). Few refuges, indeed, are immune from such pressures. In the years following the setting up of the Aransas Refuge ornithologists became increasingly aware of the cranes' desperate situation, and in 1945 the National Audubon Society decided to devote funds and eneregy to their cause. With the U.S. Fish and Wildlife Service, it formed an alliance called the "Co-operative Whooping Crane Project" and engaged biologist Robert Allen to study the problem and search for the cranes' breeding grounds. Three years and three months of devoted study and adventurous travel produced Allen's monograph on the cranes (1952) but did not locate their nesting site. Then unexpectedly in July 1952 Robert Smith of the U.S. Fish and Wildlife Service spotted two Whooping Cranes near Great Slave Lake; this clue was followed up in 1953 when cranes, but no nests, were again seen in the area. In 1954 a young bird was seen with adults from the air, and in 1955 Allen's arduous ground expedition brought him to the nesting site near the Sass River in the Wood Buffalo National Park. At this exciting moment, Allen wrote in his notes: "It has taken us 31 days and a lot of grief, but let it be known that at 2 p.m. on this 23rd day of June, we are on the ground with the whooping cranes."

The story of summers spent in searching for the nesting cranes (including the flights made by Fred Bard of the Saskatchewan Museum of Natural History in the first fruitless search over central Saskatchewan) is paralleled by the story of winters at Aransas and of the attempt to breed Whooping Cranes in captivity. Captive cranes, identified in the mind of the public by names like Josephine and Crip, became the stars of many a newspaper story, and headlines announcing "WHOOPING CRANE IS BORN" took precedence over the birth of European royalty! On to the stage at this time comes the figure of George Douglass of the New Orleans Zoo, in the eyes of some observers the "villain" of the play. Mrs. McNulty has tried to give an objective picture of this controversial layman, and to review the pros and cons in the con-

oversy that raged over management
the crane population.
When Mrs. McNulty concludes her
story of the cranes with the census
November, 1965, which counted a
gh population of 44 in the slow
covery from the all-time low of 14
1939, she recognizes that this is
t necessarily the hoped-for happy
ding of the conventional romance.
breeding potential, the wild Whoop-
g Crane population is still pre-
riously low, and even so certain
ngers continue to threaten it. One
these is the failure to recognize
at constitutes a really effective
fuge — the Bureau of Sport Fish-
ies and Wildlife has just been re-
sed its request to purchase addi-
nal acres at Aransas. Then in
skatchewan, where Whooping
anes sometimes are seen in migra-
n with Sandhills, the Canadian
ildlife Service has yielded to pres-
re and has since 1964 permitted an
en hunting season on the latter.
ainst the catalogue of dangers,
wever, can be weighed up some en-
uraging "counterpressures", such as
e trend toward conservation as a
pular cause. Since she has shown
rself so much aware of this delicate
lance, I should have expected Mrs.
cNulty to end her story simply with
expression of hope for their sur-
val "if the fates are kind to the
anes." This is, quite logically I
ink, the way her article in the *New*
rker ended. In the book, on the
her hand, Mrs. McNulty at the last
inute espouses a new cause — the
cent plan proposed by the Bureau,
take eggs from the breeding
ounds in years unfavourable to
sting success in the wild and raise
em in incubators, thereby building
a captive flock from which in the
d young could be released into the
ld. This plan she sees as the "real
pe of saving *Grus americana.*" Con-
dering the ill-starred story of pre-
ous attempts to raise cranes, as
rs. McNulty tells it, her new confi-
nce in the Bureau's plan seems to
e to strike a note of inconsistency at
e end of her book. — *Margaret*
lcher, Regina.

WHOOPING CRANE POPULATION DYNAMICS ON THE NESTING GROUNDS, WOOD BUFFALO NATIONAL PARK, NORTHWEST TERRITORIES, CANADA. 1966. By N. S. Novakowski. CWS Report Series No. 1, Can. Dept. of Indian Affairs and Northern Development. Queen's Printer, Ottawa. 20 pp., 14 figs. 50 cents.

This report introduces a new series of CWS publications, replacing the former series known as "Wildlife Management Bulletins" and "Occasional Papers".

As the title indicates, this is the report of a study of the seasonal status of the Whooping Crane population in its only known breeding grounds, the Sass River area of Wood Buffalo National Park, first located in 1954. It is shown that the Sass River birds have produced 32 young between 1954 and 1965 and that the production from other breeding areas in this period was 29 young, yet the adult population has increased by only 11 birds. To quote the abstract, "It is postulated that the juvenile birds are more subject to mortality than the adults, and as a result the total population remains fairly static. This high mortality seems to occur the year following a successful breeding season, and so long as this mortality cannot be reduced the whooping crane has little hope of reaching population levels at which it would be out of danger."

Maps and photographs (including four colour photos on the front cover) occupy as much space in the 20-page bulletin as the printed report. Obviously, the format of this new CWS series is designed to catch the public eye. In some cases, of course, the picture tells more than words can. This is true of the photographic studies of behaviour (taken, however, at the Aransas Refuge and not on the breeding grounds which form the subject of this report). I found especially revealing Walkinshaw's fine aerial photo of the nesting area, which told so much more about the habitat than the description of it. — *Margaret Belcher*, Regina.

UNITED STATES WILDLIFE REFUGES

THE SIGN OF THE FLYING GOOSE. By George Laycock. 1965. Published for The American Museum of Natural History. The Natural History Press, Garden City, New York. 299 pp. 25 black and white photographs. 17 maps. $5.95.

George Laycock describes some of the United States National Wildlife Refuges telling how each was established for the protection of particular species of birds or mammals. Since 1903 more than 17 million acres have been set aside in over 280 refuges—places where wildlife may live in a natural environment more or less protected from the advance of civilization. This great wildlife resource program is expanding at such a rate that these figures are out-of-date, but the book still has real value and interest for all naturalists. A recent news release from the U.S. Department of the Interior states that there are now 304 refuges encompassing 28.5 million acres. Fourteen new refuges will be activated in 1967.

Blue Jay readers will be interested in the fact that the first refuge was established to protect the pelican. These birds were frequently slaughtered for sport or because fishermen felt that they were depleting human food supply. At Sebastian, 135 miles north of Miami, Paul Kroegel tried to give them protection and on March 14, 1903 the President set aside Pelican Island as "a preserve and breeding ground for native birds" with Kroegel as its first manager. The area continues to remain one of the country's outstanding wildlife spectacles. Before 1903 it had been visited by Ernest Thompson Seton, Louis Agassiz Fuertes, Frank M. Chapman and others who came to paint and photograph the birds.

The second chapter tells of the extermination of the bison; in 1903 there were only 21 wild bison in all the United States. It tells of Dr. W. T. Hornaday's efforts on behalf of these animals which resulted in the setting aside of the Wichita Refug in Oklahoma in 1905. Fifteen bison were selected from the New York Zoological Park and were released on October 18, 1907 while aging Comanches sat beside the corral fence with tears running down their wrinkled faces. This 59,000-acre refuge has more than a million visitors each year who come to see the west as it was. The author asked the refuge manager, Julian A. Howard, "What d people most want to see — the buffalo the longhorn cattle or the elk?" The answer was, "The prairie dogs."

One chapter is about the beautifu and mysterious Okefenokee swamp birthplace of two rivers and home o many alligators, bobcats, racoons and water birds. Another section describe the Aleutian Islands Refuge established in 1913 with 2,720,235 acres for the native birds, reindeer, furbearing animals and fish. This refuge protects the world's greatest nesting colonies of sea birds. When formed i was generally thought to be too lat to save the sea otter, but in 1936 a small but flourishing colony was seen in the kelp beds around Amchitka Islands. Today there may be 25,000 of them, but polluted water will prevent their survival close to centres o human population, since smal amounts of oil spoil the insulating properties of their fur and they soon chill and die.

The history of the Agassiz Refug (82,344 acres of wildlife habitat in Minnesota) is interesting. This area more suited to wildlife than to agriculture, was ditched. Enthusiasti people raised $475,000 to pay fo drainage, but since they could not pay taxes they went hopelessly into debt finally, some of the area has been restored at great cost for wildlife Ducks have come back and 15 specie now produce more than 30,000 ducklings in the refuge each year; at th peak of migration a quarter of a million ducks drop in on their way south to feed and rest. There are als riving populations of grouse, moose, ack bear and whitetail deer in the fuge.

Brigantine Refuge (13,442 acres of lt marsh and sand hills on the coast New Jersey close to large cities) ays host to 60,000 bird watchers per ar. Eighty thousand Brant may be en in the refuge at once. Other apters tell of the National Elk nge near Jackson Hole, Wyoming; e Pea Island Refuge off the coast North Carolina where Snow Geese inter; Horicon Refuge, 50 miles rtheast of Madison, Wisconsin, one the main overwintering areas for e Canada Geese that nest along the uthwest edge of Hudson Bay; Aran-s Refuge along the coast of Texas hich has helped save the Whooping rane from extinction; the Upper ississippi River Refuge which retches 284 miles along the river d includes parts of four states; Red ock Lakes Refuge which was essen-al to the survival of the Trumpeter wan; the Key Deer National Wildlife Refuge and others. All the refuges, by state, are listed at the end of the book.

The second last chapter describes the despoilers who by various means try to gain rights to some part of one or more of the refuges for their own gain. Although there has been some reduction in size of a few of the refuges, many are still being established so the area of water and land for wildlife is constantly being increased. The situation in Saskatchewan is not as good for here sanctuaries, according to Dr. Murray (*Blue Jay*, pp. 110-120, 1966), had in 1965 shrunk to a third of what they were in 1925. When will Canadians appreciate their responsibilities to their native plants and animals?

In the last chapter Laycock speaks of Tomorrow's Refuges. "Almost certainly, the nation's wildlife faces more hazards in the future than it has ever faced in the past . . . with space at a growing premium, who will defend the wood duck and the bald eagle?"—*G. F. Ledingham*, Regina.

SASKATCHEWAN NATURAL HISTORY SOCIETY AWARDS

e Gordon Lund Memorial Trophy

This year the Saskatchewan Nat-ral History Society will participate the selection of the first winner the Gordon Lund Memorial Trophy, be awarded "to the person who, by ought, effort or deed is considered have contributed the most towards e conservation of Saskatchewan's newable resources during the cur-nt year." The idea of presenting a ophy in memory of Gordon Lund Prince Albert, well-known for his nservation activities and his natural story museum there, originated ith the Saskatchewan Fish and ame League. Other organizations in-rested in conservation were then vited to join the Fish and Game ague in sponsoring the award.

The first trophy was presented to orris Ferrie by the Saskatchewan Fish and Game League at its annual meeting in Prince Albert, February 18, 1967.

The Saskatchewan Natural History Society Conservation Award

Although co-sponsoring the Gordon Lund Memorial Trophy, the Saskatchewan Natural History Society does not intend to discontinue its own annual Conservation Award. The two awards are thought of as being complementary, rather than as duplicating each other. The SNHS Conservation Award is made to an individual or an organization whose total contribution to conservation is outstanding, whether in relation to a particular project, or in many roles over a number of years; it is not based on the greatest contribution made in any given year. The terms of reference have not been defined further than by the simple statement "for meritorious work in the interest of conservation in Saskatchewan."

Curiously enough, the minutes of the SNHS do not record any decision to institute a Conservation Award; they simply note the presentation of the first awards at the Annual Meeting of October 24, 1953!

These first awards were made to Ralph Stueck of Abernethy and A. C. Budd of Swift Current. Mr. Stueck received his award for conservation education, carried out by showing his movies to schools and community organizations throughout the province, and for his assistance in caring for the injured Whooping Crane Queenie when she was flown to Texas. Mr. Budd was honoured for the publication of his book, *Plants of the Farming and Ranching areas of the Prairie Provinces* representing years of study of the prairie flora.

As reported in the *Blue Jay*, it was the intention of the Society that "one, and occasionally two, such Conservation Awards will be presented annually for outstanding work in conservation in Saskatchewan," and in 1954 two awards were again made—to Doug Gilroy and Fred Lahrman. Fred Lahrman received his award because of his outstanding ability as a wildlife artist, and for a remarkable picture of Whooping Cranes in flight; Doug Gilroy was honoured because of his exceptional ability as a nature photographer, columnist (with his new "Prairie Wildlife" column in the *Western Producer*) and lecturer.

In 1955 the award went to Fred Bard, Director of the Saskatchewan Museum of Natural History, as a person especially dedicated to the cause of conservation and education.

In 1956 two awards were made posthumously, one to Dr. L. B. Thomson, former Director of PFRA, and one to Mr. E. J. Marshall, former Director of Forests with the Government of Saskatchewan. To an unusual degree, the Society felt, these men had discharged that great responsibility to succeeding generations of leaving our land in as good or better condition than when it first came under our hand.

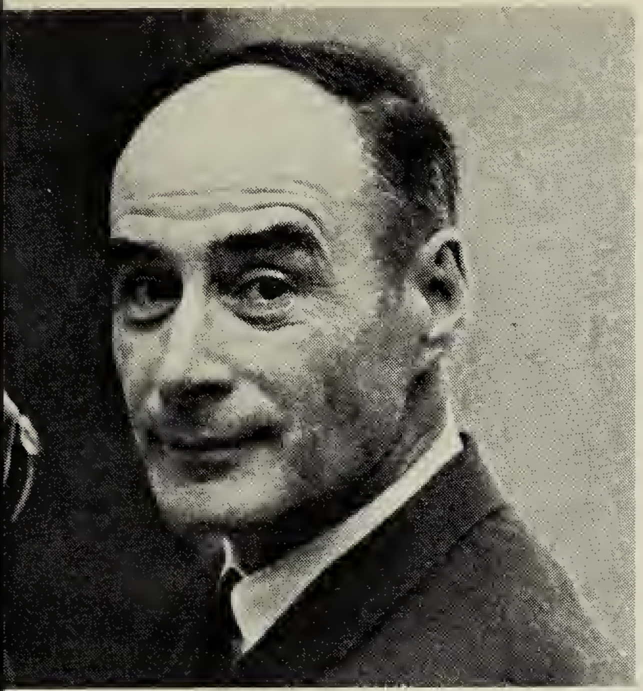
No names were brought forward in 1957 or 1958, but the award was made again in 1959, this time to Dr. Stuart Houston who had published that year, in collaboration with Maurice Street, a comprehensive study of the *Birds of the Saskatchewan River, Carlton to Cumberland.* The following year Mr. Harry Moody won the award in recognition of his broad interest in archaeology and anthropology reflected in his "Northern Gate" Museum at Denare Beach, Saskatchewan.

The conservation activities of organizations, as well as individuals, have been recognized by SNHS. In 1961 the award was made to Herb Moulding, Provincial Manager for Ducks Unlimited, Canada, as a tribute to that organization's efforts to maintain and restore wetlands. In 1963 the award was made to the Saskatchewan Falconry Association in recognition of its efforts to further public sympathy towards, and better understanding of, birds of prey.

In the intervening year, 1962, Miss Gertrude Murray, Supervisor of School Broadcasts for the Department of Education, was recognized for her natural science school broadcasts. Another naturalist dedicated to conservation education, Douglas E. Wade, won the award in 1964. Although Doug Wade spent less than three years in Saskatchewan, he helped to establish the concepts of northern canoe routes, nature trails in provincial parks, outdoor education in the elementary schools, and wilderness as a part of park planning.

In 1965 the Conservation Award went to Robert D. Symons, artist, naturalist and author, for many years a champion of conservation and capable of imaginatively portraying wildlife with the paintbrush and the pen.

At the Society's recent Annual Meeting of October 15, 1966 the work of many years of activities devoted



Dr. George F. Ledingham

conservation was recognized in the
esentation of the award to the
esent Editor of the *Blue Jay*, Dr.
orge F. Ledingham. Dr. Ledingham
s served the SNHS for 18 years in
rious roles — as president, business
nager and editor of its journal.
ring these years he has written,
oken, and worked for conservation,
th through the Society and its
rnal, and in his profession as a
logist at the University of Saskat-
ewan, Regina Campus.

e Cliff Shaw Award

One of the persons most active in
formation of the SNHS was Cliff
aw of Yorkton, who helped to carry
the publication of the *Blue Jay*
ter the death of its founder Mrs.
bel Priestly. Following his death
1959, the Society wished to honour
memory by an appropriate award,
d at the Executive Meeting of Octo-
2, a motion was made that "a Cliff
aw Award to the value of approxi-
tely $10 be made each year (for
next 10 years) at the Annual
eting to an item from the past four
ues of the *Blue Jay* judged by the
ecutive to merit special recognition
an individual contribution in any
nch of natural history."

Since the award was set up, the fol-
ving contributors to the *Blue Jay*
ve received it:

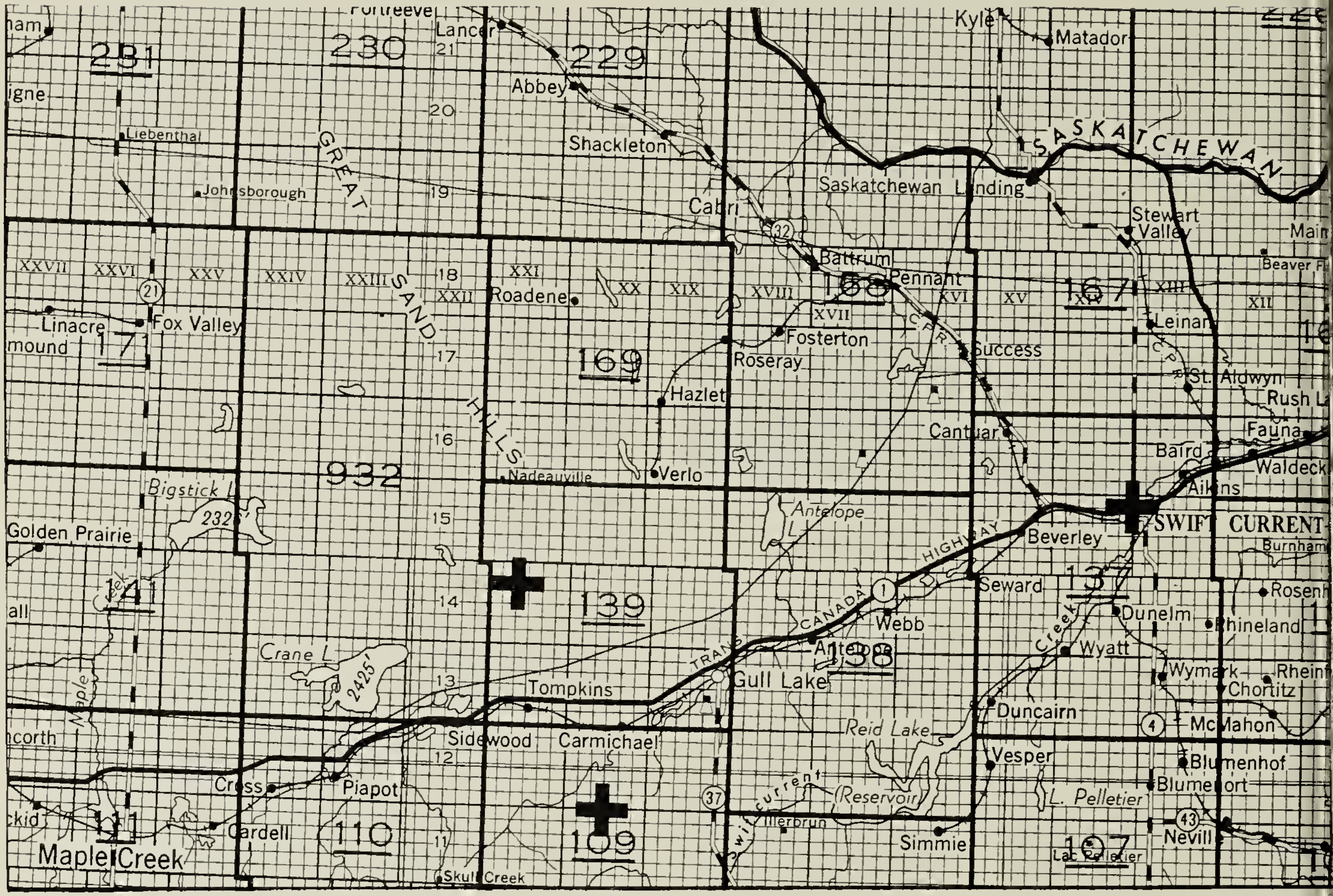
1959. Glen A. Fox, Kindersley, for his study of early spring nesting of the Horned Lark in the Kindersley area.
1960. Ralph Carson, Regina, for the series of imaginative sketches illustrating his article on the Boreal Owl.
1961. John H. Hudson, Saskatoon, for his study of the geology and geography of the Old Man on his Back Plateau, and for recording new Saskatchewan plants.
1962. Larry Morgotch, Yorkton, for his study of a Great Blue Heron colony.
1963. Keith Best, Swift Current, for continuing contributions to the plant series begun by Mr. A. C. Budd.
1964. Hans Dommasch, Saskatoon, for his photographic stories.
1965. Michael Gollop, Saskatoon, for his report on TV tower kills.

Most recently, in 1966, the Cliff Shaw Award was made to Dr. Lucy H. Murray, Regina, for her complete and carefully documented report on "Bird Sanctuaries in Saskatchewan 1887 - 1965." This report is especially valuable in presenting to the public many facts hitherto not known in their proper context, and it makes by implication a powerful plea for the retention of rapidly decreasing sanctuary acreages.

Dr. Lucy H. Murray

SNHS SUMMER MEET, 1967

Swift Current, Saskatchewan — June 9, 10, 11



Location of headquarters and field trip sites for the Summer Meeting

The 1967 Annual Summer Meeting of the Saskatchewan Natural History Society will be at Swift Current on the weekend of June 10. Members of the Swift Current Natural History Society will be local hosts for the meeting. Saturday field trips are planned to the Tompkins community pasture and to the "bench" south of Carmichael. The heavy crosses on the map above mark the approximate field-trip sites near Tompkins and Carmichael, about 50 miles west of Swift Current. The site south of the Trans-Canada Highway is on a benchland that is an eastward extension of the Cypress Hills plateau. One of the scenic ravines of this benchland is the location of the Gull Lake archeological site. The area north of Tompkins is on the southern edge of the Great Sand Hills and is near Crane Lake which, in the early part of this century, was well known for its great concentrations of waterfowl and shorebirds. This locality is also within the range of the kangaroo rat which may be seen by those interested in overnight camping in the sand hills. Bird watchers will be interested in the possible verification of recent reports of Pinnated Grouse in this part of Saskatchewan (see editorial, this issue).

Abundant motel and camping accommodation exists in or near Swift Current. Further details will appear in a Newsletter before the June meeting to allow you to finalize plans for an enjoyable weekend outing in southwestern Saskatchewan.

USED BOOKS WANTED

If you have books on birds, plants, minerals, or any natural history or natural science subject to sell please send your list to W. W. McGregor, 59 Divadale Drive, Toronto 17, Ontario.

THE SASKATCHEWAN NATURAL HISTORY SOCIETY

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BLUE JAY

Editor: George F. Ledingham; **Assistant Editor:** Margaret Belcher; **Junior turalists' Editor:** Mrs. Joyce Deutscher.

All items for publication should be submitted to George F. Ledingham, itor, 2335 Athol Street, Regina.

MEMBERSHIPS

The classes of memberships in the Saskatchewan Natural History Society as follows: *Regular*, $2.00; *Supporting*, $3.00; *Sustaining*, $5.00; *Junior* cluding schools), $1.00. The *Blue Jay* and *Newsletter* are sent without rge to all members not in arrears for dues.

Send all renewals and new memberships to Frank Brazier, Treasurer, HS, Box 1121, Regina, Sask.

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